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D R H O F F M A N.
IN TWO VOLUMES. R. i. 41

BY THE LATE WILLIAM LEWIS, M. B. F. R. S.
AUTHOR OF THE NEW DISPENSATORY, &c.

REVISED AND COMPLETED

By A N D R E W D U N C A N, M. D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH,
AND MEMBER OF THE ROYAL SOCIETIES OF MEDICINE,
OF PARIS, COPENHAGEN, EDINBURGH, &c.

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M,DCC,LXXXIII,

For the Library
of the
Royal College of Physicians &c.
from A. Duncan

P R E F A C E.

THE Works of the celebrated Dr FREDERICK HOFFMAN have long been held in very high esteem by every intelligent Medical Practitioner. But from their voluminous size, joined to the circumstance of their being written in the Latin language, they have been less extensively useful in Britain, than might otherwise have been the case. I have therefore peculiar satisfaction in being able to present to the Public, an abridged English translation of the most valuable of his writings. The practical part of his *Medicina Rationalis Systematica*, will ever claim particular attention from those who are capable of discerning the real value of the most important truths in Medicine. And although it cannot be denied, that the number of remedies which he has recommended in different diseases, is much greater than the most intelligent modern Practitioners in this country now employ; yet the fidelity, extent, discernment, and accuracy of his observations, must stamp a high value on his Work in the opinion of every reader, who prefers useful facts to fanciful speculation.

In the present publication, however, I can lay very little claim to the merit even of a translator.

For

For the labour of selecting the most important of his observations, and of putting these in an English dress, was almost wholly accomplished by the late Dr WILLIAM LEWIS of Kensington, with whose name and merit no medical reader can be unacquainted. The manuscript found in his repositories, was, in September 1781, put into my hands, by one of the booksellers for whom it is now published. Since that time, I have bestowed no inconsiderable attention in revising and comparing it with the original, which, however, has served rather to convince me of the fidelity with which it was executed, than to add to the value of the publication. I have introduced several diseases which Dr LEWIS had probably omitted, from their being of little importance, or rarely occurring in Britain. By this means, every Part, Section and Chapter in this abridged translation, corresponds exactly to the same number in the folio edition of Dr HOFFMAN's Works, published at Geneva in 1761. While, therefore, the original is, in my opinion, one of the best systems of the Practice of Medicine which has yet been published, I flatter myself with the hopes, that the English reader may derive some advantage from the labour bestowed on the present translation, by his most obedient Servant,

ANDREW DUNCAN.

EDINBURGH, }
Jan. 1. 1783. }

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P R A C T I C E
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M E D I C I N E.

P A R T I.
O F F E V E R S.

CHAPTER I.
Of the TERTIAN FEVER.

§ 1. *General History of the Tertian.*

THE regular Tertian Intermittent Fever begins with headach, weakness of the limbs, a pain in the loins, rising along the course of the back to the epigastric region, an uneasy tension of the hypochondria and stricture of the belly. To these symptoms are joined a coldness of the external parts, particularly of the nose and ears, a shivering, and frequently a violent shaking of the limbs, yawning and stretching, a small contracted weak pulse, and sometimes thirst. These
A symptoms

Tertian
Fever.



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symptoms are followed by a nausea, fruitless retchings, or a vomiting of bilious, pituitous, or green coloured matter, and sometimes a cough, with expectoration of watery mucus. The whole body is then seized with flushing, and a dry burning heat: the face, which hitherto appeared collapsed and pale, the skin, which was contracted and rigid, and the vessels in the hands and feet, which had subsided, begin to swell and redden; the pulse grows stronger, fuller, and quicker, restlessness increases; the breathing becomes more difficult, and the patient, on closing his eyes, talks incoherently. By degrees these symptoms remit, the heat abates, the urine appears of a flame colour, but without any sediment, the arteries feel softer, the skin grows lax and moist, and at length, a sweat breaking out, the paroxysm goes off: its continuance is various; in some persons 10 or 11 hours, in some 20. In the day of intermission, a chillness, weariness and want of appetite generally remain; but the pulse is natural, and the urine of a good consistence, either depositing a sediment, or at least exhibiting a cloud. Next day the paroxysm returns about the same hour as before, and continues nearly the same length of time, attended with the same symptoms.

The irregular tertian varies in its type, the fits coming on at different times of the day or night,
and

and some proving long, and others short. The intermissions are less perfect; the urine deposits no sediment, and the patient is either indisposed to sweat, or sweats too profusely. Diarrhœas, hæmorrhages from the nose, violent subversions of the stomach, a disorder of the senses, extreme cardialgia, anxieties, pains in the limbs, gripings of the bowels, or other unusual symptoms, attend.

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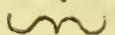


Sometimes two regular tertians are complicated together, so as to occasion two fits in one day, or one fit every day. These last are distinguished from true quotidians, by the fits which happen every second day corresponding in the time of their return, and in their appearances or type.

Remitting or continual tertians begin with shivering, anxiety, vomiting, heat, and great languor. Next day, the violence of the symptoms abates; but febrile heat, quick pulse, faintness and weakness continue: on the third day, they are again aggravated, a slight chillness preceding each exacerbation. These fevers, for the most part, change into true intermittents; sometimes in a few days, sometimes not sooner than two or three weeks.

Tertian fevers are most common in the autumn and spring. They are frequently epide-

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mic in rainy variable autumns, succeeding hot dry summers; and endemic in places of a low marshy situation. Exposure to cold, moist, foggy air, after great heats, drinking cold liquors, voracious appetite, and other irregularities, dispose to them. They quickly dry and emaciate the habit, and appear, from the vomitings and stools, to be always accompanied with a redundancy of bilious humours, either as a cause or effect of the disease.

Intermitting tertians are at first generally mild, but after repeated attacks the fits become more violent. Autumnal and winter intermittents are for the most part long and obstinate: those which happen in the spring and summer yield more easily. They are often alleviated or carried off, by an eruption about the lips, with a heat in passing urine, after the third or fourth paroxysm; but the most certain and salutary solution, effected either by nature or art, is a plentiful bilious flux of the belly, with an increase of perspiration, on the day of intermission. When prematurely suppressed by astringents, they give rise to dangerous and often incurable disorders, hectic fevers, dropsies, contractions and violent pains of the limbs, hypochondriacal affections, convulsions, whose most happy solution is a return of the fever. From slight mismanagement, they are

are apt likewise to change their type; a single tertian to be converted into a double, into a slow quotidian, or a continual fever. Relapses are frequent after a cure, particularly from errors in the non-naturals.

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§ 2. *General Method of Cure.*

1. The diet ought to be slender, and of easy digestion; spiritous liquors abstained from; the moist cold air of the evenings avoided; suitable exercise made use of, and warm liquors drank, in the time of intermission, to promote perspiration, which is generally deficient.

2. On the approach of the paroxysm, the patient is to be kept warm. During the cold fit, no kinds of medicines have place; nor are liquors to be drank, unless very sparingly, notwithstanding the thirst of which the patient complains. In the hot fit, barley water, warm whey, or other agreeable diluents, may be given liberally, not much at a time, but often: to these may be joined, where the heat and other symptoms are violent, small doses of nitre or the dulcified acid spirits. When the sweat begins to appear, diaphoretics of the milder kind are to be given to promote it.

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3. In the time of intermission, an emetic is to be given, if no symptoms contraindicate its use; to weak persons ipecacuanha; to those of a stronger constitution, emetic tartar: if the fits are violent, the vomit cannot be given too early, as repeated attacks of the intense heat may dispose the stomach to inflammation. The purging salts, with crude sal ammoniac and nitre, may be substituted or premixed to emetics; and where there is a suspicion of obstructions of the viscera, or where the patient has been accustomed to gross food, they may be occasionally repeated. In some cases, emetics and cathartics are advantageously mixed together. Plentiful evacuations are particularly necessary, where a voracious appetite has been indulged, and great anxiety of the præcordia, sickness, eructations; and a bitter taste in the mouth are complained of. If great weakness and sensibility of the stomach forbids both emetics and the saline cathartics with aperients, as oftentimes happens in children, old people, hypochondriacal and cardialgic persons; the belly, if bound, is to be opened by emollient and carminative glysters, and the offending humours carried off by the gentler laxatives, manna, rhubarb, with a small quantity of the sal diureticus, and some aromatic oil.

4. The

4. The next indication is to strengthen the solids, particularly the stomach and intestines. On this the cure principally depends, though medicines of this class are for the most part neither safe nor effectual, till due evacuations have been premised. Of all the known astringents or corroborants, Peruvian bark is with this intention the most successful: given in the time of intermission, in doses of about half a dram every four hours, it raises the pulse and spirits, increases perspiration; in choleric persons, loosens the belly; and by these marks discovers its salutary operation.

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5. After the fever has been removed, the bark must be continued at proper intervals for some time, with elixir of vitriol, bitters and other stomachics. A strict regimen must be observed, with care not too much to indulge returning appetite. If the belly be bound, stools are to be procured by glysters, or by joining gentle laxatives to the bark: purgatives, especially if given by themselves, are apt to bring back the fever.

§ 3. *Practical Cautions and Observations.*

1. The bark is found more successful and speedy in its effects, at the beginning of the disease, than after the patient has been weakened

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by a long continuance of it; in persons of a hot, sensible and active disposition, than in those of a sluggish, melancholic, and flegmatic temperament; where the urine deposits a sediment, and the cuticular excretions succeed, than in the opposite circumstances. In all cases, moderate exercise and the drinking of warm liquors promote its effect.

2. Peruvian bark in substance answers better than any of the preparations of it; but where the stomach is too weak to bear a sufficient quantity in substance, a tincture in wine, or the extract, may be substituted. If great heat is complained of, nitre is to be joined; and in suspicion of obstructions of the viscera, sal ammoniac or alkalines.

3. Though purgatives, emetics, or saline aperients, are in general to be premised to the bark; it is sometimes necessary to exhibit bark first, that the paroxysms being restrained, there may be the more time for that part of the cure.

4. If the tertian appears at first in the form of a continual or ardent fever, diluents, with small doses of nitre and other saline substances, should be given, till it changes into a true intermittent, when evacuants and Peruvian bark may be employed with advantage.

5. In

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5. In continual tertians, with great heat and delirium, if the patient is strong, full of blood, of a bilious disposition, prone to anger, and accustomed to high feeding, venesection is proper. The blood must be taken away in the time of remission, and an infusion of chamomile flowers drank some hours before or after. If crudities abound in the first passages, and the above indications do not appear, bleeding will injuriously check perspiration, confirm the fever, and render it chronic.

6. In obstinate tertians, as autumnal ones generally are, and in those which have degenerated into quotidians, the antifebrile draught, composed of simple waters, salt of wormwood, and spirit of vitriol, exactly neutralized, taken twice or thrice a-day, is of eminent service.

7. The more bilious tertians, or those which arise from anger, often yield also to the same medicine. Bitter, sudorific, alexipharmic, acrid, and aromatic medicines, are here to be abstained from; and nitre, and other saline substances, exhibited in small doses.

8. Opiates deceitfully mitigate or suspend the paroxysms: by weakening the strength, and disturbing the course of the fever and salutary crisis,

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sis, the disease gains strength, and the fits are the more aggravated for their delay. Theriaca or compositions of opium with aromatics, are less injurious than simple opiates.

9. Aluminous and vitriolic medicines suppress the paroxysms ; but are generally productive of ill consequences, unless, after their use, a diaphoresis is promoted by warm liquors or exercise.

10. In sluggish phlegmatic habits, cascarilla is an excellent assistant to the bark ; but as this medicine is apt to heat the blood, it is less proper in bilious dispositions.

11. Absorbents are to be cautiously used. Taken immoderately, they form a kind of viscid paste, load the stomach, and produce nausea and anxiety. The coarser substances of this kind, as most of the marine shells, are difficultly soluble in acids, and when dissolved, manifest an astringent quality.

12. In plethoric habits, the fit is often attended with a violent headach and disorder of the senses, from an accumulation of blood in the vessels of the head. The removal of these complaints is never to be attempted by topical applications : epithems of wormwood, rue, cum-
min

min seed, juniper berries, salt and bread, have frequently done harm : much less are the so called cephalic and nervous medicines, as the balsamum vitæ, though of great service in other disorders of the head, to be used here.

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13. If from mismanagement, œdematous tumours succeed, the cure is to be effected by detergent salts, balsamic pills, and decoctions of the woods : acrid purgatives, chalybeates, and volatile salts are improper. If an anasarca happens, an emetic should be given with a proper dose of the cathartic extract

14. Aged persons of a plethoric habit, and accustomed to venesection, when tertians are epidemic, are often seized with a continual one, preceded by a violent cholic arising from cold. Here bleeding is proper. Peruvian bark given too soon changes the tertian into a quotidian of an hectic appearance, which generally proves fatal.

15. To children eight or ten years old, let an emetic potion be first given ; after which glysters of lesser centaury and bark complete the cure.

16. Women, who, from a suppression of the menses, have become cachectic, are to be treated
with

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with great circumspection. All strong corroborants and evacuants, even emmenagogues, are to be abstained from: such as are of a gentle kind have place, but not till the fever has gone off. Laxative, bitter, and carminative glysters, mild laxative infusions, with bitters, Peruvian bark, and steel, are the most effectual remedies.

17. Women after child-birth suffer greatly from intermittents, unless due regard is paid to the lochia; and the more so, as these are suppressed by those medicines which restrain the fever. The tonic balsamic pills are here remarkably serviceable.

§ 4. *Histories of Cases.*

1. A man of 50, choleric and passionate, for the cure of a summer tertian which had lasted some weeks, took large and repeated doses of sal ammoniac, salt of tartar, nitre, and other salts: all the symptoms grew worse, cardialgia and oppressions of the præcordia increased; the face appeared contracted, pale and livid; the extremities were cold, even on the days of intermission; a constant dry cough, retchings to vomit, and hiccup, came on: the taking any kind of food or liquors exasperated the complaints. The salts were now laid aside: chicken-broth

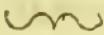
broth with barley and yolks of eggs, and infusions of chamomile flowers, taken frequently: a bladder full of warm liquor applied, before the fit, to the epigastric region: and glysters of milk and manna, with a little nitre and common salt, injected. By these means the symptoms were mitigated; and an electuary of Peruvian bark, julep of roses, theriaca and nitre, given afterwards in moderate doses, completed the cure. Nothing is more apt to occasion an inflammatory disposition of the stomach, and an effusion of acrid bile, than anger; which this person gave way to, even in the time of the fever. Salts, therefore, which universally irritate the nervous coats of the stomach and intestines, were here as injurious as in other circumstances they are beneficial.

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2. A gentleman of 66, robust and full of juices, who had never suffered any evacuation of blood; from being exposed, after sweating, to the cold air of the night, fell into an exquisite tertian. The cold fits were attended with delirium, and almost total loss of sense; the hands and feet trembled from extreme anxiety, the body was exceedingly restless, the face swelled and brown, the pulse contracted, hard and quick: these symptoms lasted three hours, during which the patient had generally two or three gelatinous stools

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stools of a deep bilious colour. The hot fits continued six hours, and went off in a moisture of the skin. The thirst was greatest in the cold fit. In the time of intermission, there was no complaint. During the third paroxysm, saline nitrous juleps were given at intervals; the crisis promoted by an infusion of scordium and lemon peel; and nitre, with sal diureticus, given in the intermission. These medicines were continued till the ninth paroxysm, when the symptoms being much mitigated, the patient was purged with manna and sal polychrest, the fever stopt by an electuary of bark, and the cure confirmed by balsamic peels and an aperient saline powder taken every other day.

The uncommon symptoms attending this case threatened some dangerous distemper of the head, which probably the spontaneous evacuations by stool prevented. In plethoric habits, where venesection cannot be performed, such medicines should be given as gently loosen the belly and abate the heat: the paroxysms cannot safely be stopt, till the symptoms have abated, and the urine appears concocted.

3. A man of 40, of a sanguine and melancholy temperament, long accustomed to irregularities in diet; in summer, when fevers were epidemic, after violent passion and exposure to the evening

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evening cold; complained of weariness, interrupted sleep, pain of the back, and tension of the head and hypochondres, which were followed by shivering and heat. On the third day the paroxysm returned: the cold fit was slight, but the hot one violent, with extreme anxiety, and a disorder of the senses. A vein was opened, an emetic exhibited, which occasioned only one puke; and, after the fourth paroxysm, the fever was stopt by bark. In a few days, from irregularities, the fever returned more violently, with excessive anxiety, heat, and vomiting: Peruvian bark was again exhibited, along with chalybeates: the single tertian changed into a double; the strength decayed; a tumour was perceived about the region of the stomach; every thing taken into the stomach was thrown up; the anxiety became scarce supportable; the pulse quick, even in the time of intermission; the urine sometimes thick, with a sediment, sometimes thin and yellow, sometimes reddish; the stools, which could not be procured without glysters, were viscid, foetid and bilious.

Hitherto the disorder had been very improperly treated; at first, by giving an emetic in a fever attended with such heat and anxiety; and afterwards, by suppressing the paroxysms, without correcting or evacuating the morbid matter. The cure was effected by the following method;

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method: The mineral anodyne liquor and stomachic elixir were exhibited with an infusion of scordium leaves, chamomile flowers, milfoil tops, and fennel seeds; and an absorbent powder, with nitre and a small quantity of castor, taken occasionally in a decoction of hartshorn shavings and scorzonera root; which decoction was used also for common drink. Afterwards, a mixture of salt of wormwood and lemon-juice was given; and a cataplasm of chamomile flowers and aromatics with yeast, spirit of wine, and vinegar of roses, applied warm to the region of the stomach. This application was followed by an universal sweat, and a cessation of the anxiety and vomiting: the fever likewise gradually became milder, and then yielded to an electuary of Peruvian bark and chamomile flowers, with syrup of lemon-juice.

4. A gentleman of 74, strong and healthy, after the omission of customary venesection, and exposure to cold, was seized with a continual tertian. Bark was given in large quantity for several days, with ill success: the weakness increased fast, with excessive anxiety, pain of the head, thirst, a large, full, quick, and sometimes intermitting pulse. Analeptics and gentle diaphoretics were exhibited, but with little hopes of their doing good: the patient in a few days died under the paroxysm.

At

At the beginning of this disease, bleeding would have been proper. Peruvian bark always does harm before the acrimony of the juices has been corrected, or heat abated, particularly in plethoric persons, and those of an advanced age.

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5. Several noblemen, from irregularities at a place of a moist unhealthful situation, fell into tertians. After the third paroxysm, a potion of manna, emetic tartar, and simple waters, was given; by which, large quantities of vitiated humours were evacuated both upwards and downwards. Three or four hours before the next paroxysm, the neutral mixture, with spirit of vitriol, was given in the aqua theriacalis, with simple water, to promote a gentle sweat; and, after the paroxysm, Peruvian bark was repeated every two hours, along with chamomile flowers. The fever disappeared in a few days, and its return was prevented by a more sparing diet, and the use of the stomachic elixir.

6. In the uncommonly hot summer in 1727, fevers attended with excessive heat, depression of the strength, anxiety, pain of the head, and sometimes a delirium, were epidemic throughout Germany. Their most common form was that of a continual tertian, which changed by degrees into an intermittent tertian, quartan, or

B
quotidian.

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quotidian. These were successfully treated by bark joined with nitre, saline purgatives, or where those were improper, as in women subject to spasmodic affections, emollient and discutient glysters being premised. Remittents and intermittents, attended at first with violent symptoms, bear Peruvian bark in the beginning, better than those which come on gently and proceed slowly.

7. A soldier of 40, of a lax habit, weak from frequent losses of blood and the abuse of wines, took a mixture of volatile spirits and an alexipharmic tincture, for the cure of an epidemic continual tertian: by this the heat and thirst were increased, and a delirium brought on, in so much that the patient drank largely of cold water, and run out naked into the cold air. The fever nevertheless changed into an intermittent, extremely irregular, with great weakness and propensity to sweat: at length it went off, leaving a constant cough, a febrile commotion returning every day, and a hard tumour about the middle of the cartilago ensiformis, which increased for two months with great heat and pain. A diachylon plaster being applied, with an emollient cataplasm over it, the tumour in a few days suppurated, and, on incision, discharged at least three quarts of an extremely fetid matter with a little blood. The abscess was
healed

healed up by balsamics, and the patient perfectly recovered.

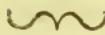
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8. A man of 40, in summer when fevers of different kinds were frequent, after a vehement fit of passion, was seized with great anxiety of the præcordia and retchings to vomit, followed by a yellow colour of the body, particularly of the white of the eyes, and a violent cough which was worst in the nights. To these, from cold and irregularities, acceded a tertian fever, the hot fits of which lasted near twenty hours. A dose of emetic tartar brought up a pituitous matter only slightly mixed with bile; a warm electuary with theriaca being given afterwards, the fever was much exasperated; there were no cold fits, nor intermission of heat; the sleep and appetite failed. By diluents, nitrous medicines, and the mineral anodyne liquor, the symptoms were rendered milder; after which, an electuary of Peruvian bark, with nitre and bitters, continued for four days, entirely removed the fever, cough and jaundice.

9. A robust soldier, who, from being on duty in a foggy night after a full meal, had been seized with a tertian, took on the day of intermission an emetic, which occasioned a plentiful evacuation of pituitous and bilious matter; and

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three hours before the next fit was expected, fifteen peppercorns, with some spoonfuls of spirit of wine, drinking after this medicine a quantity of hot ale, and keeping himself warm in bed: a copious sweat ensued, the paroxysm was prevented, and by repeating the same remedy, the disorder was entirely removed.

10. A young man, choleric and passionate, and accustomed to the liberal use of wine, by taking the same medicine was thrown from an intermitting tertian into an almost continual fever, with a delirium, great heat, and exquisite burning sensation at the pit of the stomach. The cure was effected by emulsions, absorbent, diaphoretic and nitrous powders, and bark; which last, occasioned a salutary diarrhoea, as it usually does in persons of a choleric disposition.

11. A man of 60, robust, and of a full habit, subject to calculous pains and flatulencies, having a tertian suppressed by bark after three or four fits, complained of an inflation of the stomach, eructations, and rumbling of the bowels, especially after meals. Balsamic pills taken in the morning, and purging salts in the evening, for some days, and afterwards a carminative tincture, with spiritus nitri dulcis before dinner, removed this disorder; which on omitting the
medicines,

medicines, returned, and on resuming them, went off again.

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Fever.



A tertian happening in chronical indispositions, proves generally a cure for them, but if too soon restrained leaves them worse. In such cases, though medicines adapted to the complaints do service, a perfect cure is scarcely to be obtained without the use of mineral waters.

12. A man of 70, strong, of a slender habit, had suffered the 14th fit of a tertian, notwithstanding the use of saline powders, bitters, and polychrest-pills. The strength was greatly depressed, the appetite lost, the urine without a sediment. The pulse, during the paroxysm, being still full and strong, bark was given, with some spoonfuls of wine every two hours. The next fit was slight, not attended with nausea, head-ach or anxiety, as all the preceding had been; nor was there any farther return.

The rule, that Peruvian bark should not be given till the urine appears concocted, is by no means without exception. This febrifuge is always safe where the first passages have been sufficiently evacuated, where the body does not abound with impure juices, where the viscera are unhurt, and there is no danger of an in-

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ternal inflammation. It is more particularly salutary in persons of an active disposition, a fibrous habit, and large vessels; and has generally the most speedy effects in those who have been already, in some degree, weakened by the disease.

13. At the purging-springs, as soon as a fever comes on, the waters are drank liberally on the days of intermission: these not only evacuate the intestines, but likewise promote urine and sweat. If the fever does not go off at the fifth paroxysm, it rarely fails to yield in a little time to the Peruvian bark, either by itself, or with other corroborants, bitters and chalybeates. Where the mineral waters are not to be procured, artificial imitations of them may be substituted.

14. A boy of a florid countenance, lively disposition, and voracious appetite, subject for two years to a flux from the hæmorrhoidal veins, and tension of the abdomen, but in other respects healthful; took astringents for the cure of a tertian. The fever became milder; but on continuing the medicine for some time, the aguish fit changed into an epileptic one, which, notwithstanding the use of various antiepileptics, continued for 20 hours, and terminated in death.

The

The hæmorrhoidal flux in children, a consequence of an obstruction of the viscera of the lower belly, is generally followed by some dangerous distemper. The tertian fever, if not restrained, would probably have been salutary; especially as intermittents are observed to continue in children under proper management for a year together, not only without injuring, but rather confirming the strength, and contributing to longevity. The suppression of the fever was extremely ill judged.

Tertian
Fever.



CHAPTER II.

Of the QUARTAN FEVER.§ 1. *General History of the Quartan.*

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THE Quartan is a fever returning every fourth day, leaving two days of intermission.

The paroxysms of the regular quartan come on generally about four or five in the afternoon, with a remarkable faintness, stretching, and a dull pain of the head, back, loins and tibiæ. The feet and hands grow cold, the whole body pale, and the face and nails livid: a shivering ensues, with a tremor of the lips and tongue, difficulty of breathing, anxiety, restlessness, a hard, contracted, and sometimes unequal pulse. These symptoms continue for two or three hours, during which the belly is generally bound, though sometimes there is a stimulus both to stool and urine: aged persons in particular are subject to purging, vomiting, and frequently a delirium. A heat slowly succeeds, not very burning, but very uneasy and dry; the pulse becomes quicker and

and stronger ; an obtuse pain of the head continuing, attended with giddiness ; till, in four or five hours, a gentle moisture breaking out on the skin, carries off the paroxysm. On the days of intermission, the patient almost always leaves his bed, but complains of a heaviness of the head, and a pain of the limbs as if the bones were ready to break. The urine, which during the fit was thin and watery, appears now turbid, and deposits a sediment.

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The irregular quartan attacks sometimes at one hour, and sometimes at another, though most commonly in the forenoon. The hot fit is more violent than that of the regular, and more uneasy to the patient even than the cold fit.

Sometimes two regular quartans are complicated together, so as to leave only one day of intermission, each preserving its proper type and time of accession. This double quartan happens chiefly from improper treatment of the single.

Sometimes the fits are followed only by a remission of the symptoms ; the heat continuing greater, and the pulse quicker, than natural, the appetite weak, the strength depressed, the mouth dry, the head giddy, sleep disturbed, the urine red and turbid, with a rose-coloured sediment. The paroxysms or exacerbations of this continual

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nual quartan are for the most part not very regular in their periods, and preceded only by a stretching and shivering.

Quartan fevers are frequently epidemic after uncommonly hot and dry summers, when, from drinking cool acescent liquors, or exposure to the cold night air, the perspiration of the humours, rendered acrimonious by the heat, is impeded. They are common almost every autumn in some parts of our northern climates, where the food is gross and of hard digestion, particularly in marshy places infected by the putrid exhalations of stagnant waters: here quartans are usually endemic in the autumn, and tertians in the spring.

The quartan varies in the violence of its symptoms, according to the disposition of the body. If from a sedentary life, and gross food, thick blood abounds; if there is an ill constitution of the hypochondres, or the patient has long given way to immoderate grief, it is usually obstinate and severe, and requires a strict regimen, and great judgment in the exhibition of medicines. In cacochymic habits, and where there is a disposition to a miliary fever, its symptoms are far more violent: after the miliary eruptions have come out, they are apt to disappear again, and thus

thus augment the fever. Where the strength is previously exhausted by age, an ill state of health, or irregularities, it is apt to change into a dangerous remittent. In young active persons, after a hot summer, the paroxysms last longer, the burning heat and weakness of the stomach are greater, and the fit goes off in a more plentiful sweat. Children, from crudities in the stomach, deficiency of perspiration; exposing themselves to cold air in the night by throwing off the bed-clothes, struggle long with this fever, and, after its removal, are extremely subject to a relapse, or to other diseases.

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The quartan is not dangerous, unless the patient is aged or weak, or subject to epileptic fits, or gives way to passions, or when the fever has by improper treatment been changed into a quotidian or some chronical disease. It is nevertheless generally of long continuance: those which begin in autumn often elude the force of medicines till the spring, and then go off almost spontaneously. Cutaneous eruptions, the hæmorrhoidal flux, and in children the small pox, are sometimes its solution; but for the most part there is no critical excretion.

Spring and summer quartans are easy of cure. Those likewise which arise from a suppression of perspiration

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perspiration or crudities in the first passages, whilst the viscera remain sound, generally yield to a single emetic or diaphoretic given before a paroxysm. Such as happen to young strong persons, especially where bile rather than tenacious acid humours offends, admit also of a speedy cure. Nor are the irregular quartans, or those which change from a single to a double form, so much to be feared as is commonly imagined; this disease generally becoming vague and anomalous before it goes off. Quartans in pregnant women continue till delivery, and are then transferred to the child.

This fever sometimes prevents or remedies other distempers; but when protracted to a length of time, it gives rise to many; particularly dropsies, cachexies, œdematous tumours, hectic fevers, dry asthma, and jaundice; in aged people, comatous and paralytic affections; in the young, hypochondriacal disorders; in children, convulsions. In all these cases, upon dissection, the liver, spleen, pancreas, and mesenteric glands, are found obstructed and corrupted. Wherever the quartan proves fatal, the patient dies in the cold fit delirious. After the disease has been removed, it is apt to return again from slight irregularities.

§ 2. *General Method of Cure.*

1. The offending humours in the first passages are to be corrected and evacuated, and obstructions of the viscera removed, by alkaline salts, the sal diureticus; and sal ammoniac, purging salts, aloetics with bitters and balsamics: in obstinate obstructions, recourse must be had to mercurial and antimonial alteratives.

2. The violence of the symptoms is alleviated by liniments composed of the distilled oils of lavender, rue and sage, with balsam of Peru and axungia, rubbed warm on the spine; warm bathing before the paroxysm; aromatic epithems applied to the epigastric region during the cold fit; stimulating plasters to the wrists, in the time of intermission; and carminative nervous glysters injected occasionally.

3. Peruvian bark, with cascarilla, bitters, aromatics and chalybeates, are to be subjoined to complete the cure, and continued for some time afterwards to prevent a relapse; the belly being kept open by gentle laxatives, and a freedom of perspiration maintained by exercise and a warm regimen.

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§ 3. *Practical Cautions and Observations.*

1. A quartan is one of the most obstinate diseases, especially in aged, melancholic and hypochondriacal persons, where the circulation of the blood through the meseraic veins is languid, the viscera obstructed, and the autumn advanced. The cure is to be attempted by gentle means, for violent ones do more harm than good.

2. In the beginning, if nature be strong, the more powerful resolvents and evacuants have place. But when the disease is of long standing, the body of exquisite sensation, and where acrid and bilious excrements abound, these kinds of medicines exasperate the fever, and often change it from a single to a double quartan, or to a quotidian.

3. Many have been happily cured by a tincture of rhubarb, and bitters made in alkaline lixivia and Hungarian wine: others, by taking ley of tartar frequently in their common drink, a glass of old Rhenish wine, with or without bitters, before the paroxysms, and using afterwards strong exercise: others, by bathing every day, and exercise, so as to promote a sweat before the fits.

4. The

4. The cure is always easiest where the air is pure, as in spring and favourable summers. Sometimes the disease does not yield till a situation where the air is unhealthful be exchanged for one more wholesome, or an alteration made in the diet and manner of life.

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5. In the quartan, as in other long diseases, a change of drink is particularly to be recommended. Decoctions of sarsaparilla, carduus, cichory, raisins and fennel-seeds, cold or warm, are useful alternatives to beer and tea. The purging waters, with one-half or one-third their quantity of wine, are likewise a serviceable drink for diluting the thick humours and carrying off the impure by urine.

6. Perspiration is to be studiously promoted both before and after the paroxysms, not by the more powerful sudorifics, but by exercise and the milder diaphoretics.

7. The sweat at the end of the paroxysms, is to be promoted by external warmth, and drinking warm diluting liquors. If checked by cold, the fever is prolonged, and contractions and oedematous tumours of the feet succeed.

8. In pregnant women, and where the motion of the blood through the abdominal viscera seems impeded,

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impeded, as in those who are subject to hypochondriacal and hysterical disorders, or where there is a tendency to an hæmorrhoidal flux; bleeding in the feet is proper, and will sometimes effect a cure. Imprudent bleeding confirms the disease. It is observable, that the blood drawn in quartans appears covered with a yellowish, viscid, pituitous matter.

9. Where the first passages abound with crudities from intemperance, and the patient complains of retchings, an emetic is advisable; provided the lungs and other viscera are sound, the stomach not very tender, or the nervous system weak. Ipecacuanha is the safest emetic; but blue or white vitriol are better adapted to prevent returns of the fit.

10. Peruvian bark is a medicine of approved efficacy and safety in quartans; but its use is never to be ventured on unless the viscera are sound and free from obstruction, and proper evacuations have been premised. It is safer in the bilious summer quartans than in the autumnal; in which last, it should be joined with aperients, bitters, and diaphoretics: in some cases, chalybeates, volatile salts, purgatives, and mercurials, are excellent assistants.

11. The

11. The paroxysms of obstinate autumnal quartans are sometimes abated or suppressed, by stimulating epithems applied to the wrists. These may be composed of turpentine, foot, sal ammoniac, pepper, and theriaca.

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12. Mineral waters, particularly the chalybeate, seem to be of good service, both for the prevention and cure of intermittents. They are to be drank in the time of intermission, with care that they pass off before the return of a paroxysm, which otherwise will be exasperated.

13. In case of costiveness, glysters are most advisable; which, besides emollient, should contain carminative ingredients, and occasionaly bitters and corroborants. A decoction of bark has of late been employed in this form; and when frequently repeated, has effected a cure. This method of exhibiting the bark is very convenient for children, and those whose stomach is weak and apt to nauseate it.

14. The violent headachs which frequently accompany quartans, in persons of an advanced age, are difficultly removed. The greatest relief is obtained from laxatives; and vinegar, with salt and nitre, applied to the part.

§ 4. *Histories of Cases.*

1. A Lady of a thin habit, but full of blood, in the fifth month of pregnancy, after travelling in cold, cloudy, evening air, in autumn, fell into a quartan, with violent headach, extreme anxiety of the præcordia, retchings, and restlessness. Bitter and alexipharmic tinctures aggravated the paroxysms, and brought on a most intense heat, gripes, and pains of the back. Bleeding and nitrous medicines rendered the fits milder; after which the cure was completed by Peruvian bark. The bark may be very safely given to pregnant women, with proper circumspection.

2. A man of fifty, corpulent and cachectic, was seized in autumn with a quartan, then epidemic, accompanied with swelled feet, costiveness, and a sleepiness and numbness during the paroxysm. After many medicines had been given in vain for a month, bark suppressed the fever in a week. A painful swelling of the foot, with an ulcer above the ankle, succeeded; and on these being cured by externals, the fever returned, and would not yield to any kind of medicines. In half a year, a dropfy came on, of which the patient died.

The swelling of the feet seems here to have been critical, and was very imprudently repressed. By proper internal medicines, adapted to the cure of the cachexy and obstruction of the viscera, the patient might probably have been preserved.

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Fever.



3. A young gentleman, addicted to drinking, after travelling in a rainy autumn, fell into a tertian; which, from the liberal use of citrons and juleps to abate the heat, changed into a quartan; with exquisite pain of the limbs, a kind of rigor of the head and feet, costiveness, and heat of urine. The disease, after having long eluded a variety of medicines, yielded at length to mercurials; but a dangerous salivation continued for a fortnight, the discharge amounting often to a quart a day: the patient had no sleep, could take no solid food, the hands and feet were cold, the fauces and gums surprisingly swelled, the breath extremely fetid, the body weak and emaciated. By the use of warm pediluvia thrice a day, glysters, gentle laxatives, decoctions of the woods for common drink, bezoardic powders with theriaca and oil of sassafras at bed-time, a warm regimen, restraining and antiseptic gargarisms, all the complaints were removed in a month. Quartans are often cured by a salivation, which in this disorder is apt to arise to a high degree from small doses of mercurials.

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4. A strong plethoric man, of a sedentary life, subject to a hæmorrhoidal flux for a year, complained, in autumn, without any external cause, of shivering, lassitude, pain of the limbs, vomiting of green phlegm, with great anxiety of the præcordia; followed by an universal heat, with a headach and dryness of the skin; the urine natural. On the fourth day, the same symptoms returned. Bitters, with volatile spirits and warm tea, given plentifully before the next paroxysm, rendered it worse; upon which, Peruvian bark was exhibited liberally, both in the fits and intermissions: the strength failed, the breast became more and more oppressed, the belly bound, vomitings happened in the fits with excessive anxiety, and, when these did not succeed, faintings, and the intermittent seemed changed almost into a continual fever. By bleeding, the next paroxysm was rendered milder; and by laxatives and glysters during the intermission, and a nervine liniment applied to the spine and feet in the fit, the fever was still farther abated, the pain removed, and the urine and sweat rendered more plentiful. After this course had been continued for a month, a composition of bark with steel, mercury, and medicinal regulus of antimony, produced an effectual cure.

5. In the extraordinary hot and dry summer of 1719, a young woman full of blood, of a soft and

and spongy habit, was seized with a quartan. After the fourth paroxysm, blood was drawn plentifully from the arm, and a strong purgative exhibited, which occasioned twenty stools in twenty-four hours: the purging continued, tho' not very frequent, for some days, and at length the stools became bloody and mucous. The fever went off; and the flux was afterwards removed by infusions of chamomile and elder flowers with milk, and a powder of cascarilla and bole armeniac. At this season, fevers and dysenteries were both epidemic, and sometimes one terminated in the other.

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6. A young man, in the beginning of autumn, having, after a fit of passion, taken a large draught of liquor, and exposed himself to cold, was seized with a quartan then epidemic. Three grains of emetic tartar and fifteen of vitriolated tartar, given six hours before the sixth paroxysm, brought up a pituitous liquid, and some bile, with great anxiety of the præcordia; on which the quartan fever changed into an irregular quotidian. Nitre with cinnabar and absorbents rendered the fits shorter and milder, the belly loose, and the sweats, on the termination of the paroxysms, profuse: after these had been continued some weeks, the fever was removed by bark. A relapse, from voracity and cold, yield-

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ed, after a few paroxysms, to the balsamum vitæ given in mint-water, before and after the fits: and a second relapse, from the same cause, by taking fifteen corns of white pepper in some spoonfuls of brandy four hours before a fit, and repeating this medicine four times, keeping warm in bed each time, so as to promote a sweat.

Common people, from errors in the non-naturals, are very subject to returns of this disease; which are therefore to be provided against, either by emetics, or saline detergents and balsamic laxatives, or stomachics, as pepper. A sweat properly excited before the paroxysm is by no means hurtful, but salutary, provided the first passages have been sufficiently evacuated. It is an erroneous opinion, that the febrile matter is carried off only by sweats at the end of the fit; for profuse sweats at this time, or in the intermissions, are rather marks of a debility of the parts, which disposes the body to a fresh paroxysm.

7. A boy ten years old, of a pale livid aspect and turgid belly, but good appetite, after exposure to the cold evening air, was seized with a quartan; which, on the appetite being increased by bitters, and the bed-clothes thrown off in the night,

night, changed into a quotidian. On pills being given every other day, and the common drink impregnated with salt of tartar, nitre, sal ammoniac, arcanum duplicatum, and a little extract of saffron, for three weeks, the fever and lividness of the face went off, and the belly subsided. A month after, the fever returned in a quotidian form, and was removed by the same medicines; as was likewise a second relapse. A third was prevented by continuing the medicines some time after the cure, and abstaining from unwholesome foods.

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Children are difficultly cured of a quartan, and very subject to relapses, or to other chronical disorders from a weakness of the stomach, or catarrhus defluxions and slow fevers. The cure is most successfully begun by a purgative six hours before the fit; to which is to be added, in case of nausea or retchings, half a grain of emetic tartar: during the intermission, an infusion of bark with cascarilla, sal diureticus, and salt of tartar, is to be given every two hours: if this does not remove the fever, we may suspect an obstruction of the viscera or abdominal glands. The saline compound above described is now to be exhibited, and an aperient decoction used for some time; after which, especially if the fits grow milder and shorter, we need not

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doubt of obtaining a complete cure, by glysters of Peruvian bark repeated twice or thrice during the intermissions, an emollient glyster being premised to evacuate the intestines.

8. A gentleman of eighty, very healthful, in the evening, after a sudden fright and full meal, complained of a coldness and shivering, followed by heat and a restless night. On the fourth day, the symptoms returned, more violent, with a headach, weakness of the limbs, and anxiety of the præcordia: in the intermediate days, he was well. An emetic was given before the eighth and ninth paroxysms; acrid saline powders, with ginger and arum root, in the intermissions; and a weak decoction of the woods for common drink: the fits grew worse, a restlessness, dulness, and emotion of the mind came on, the headach and weakness continued during the time of intermission, with a preternatural heat, and loathing of food; by which the strength being gradually exhausted, the patient expired in the shivering fit.

A loathing of food is a very alarming symptom, not only as it emaciates the body, but as it generally proceeds from a corruption of some of the viscera. These long fevers from affections of the mind, are, in aged persons, full of danger, and,

and, though the strength should not at first be much depressed, require to be treated with great circumspection; slight errors, in medicine or regimen, may be productive of irremediable mischief.

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9. A young man of a studious and sedentary life, after travelling in rainy weather in September, fell into a quartan; which was mitigated by nitrous powders in the fit, and a saline purgative in the intermission. On exposure to the cold moist evening air, the fever became not only more violent, but double, the belly bound, the feet and legs swelled, and the face and whole habit bloated. An alkaline nitrous liquor, and balsamic pills, loosened the belly, and reduced the fever again to a simple form: on continuing their use, a diarrhoea ensued for some days, with exquisite pains about the navel, and such an acrimony of the feces as almost eroded the anus. The fever abated; but the weakness, loss of appetite, lurid aspect, and swelling of the legs, rather increased. On taking bark with cascarilla, bitters and alkalies, in the intermission, the strength and appetite immediately increased, the fever, after one slight paroxysm, went off, and the swelling gradually subsided. The cure was confirmed by a strict regimen, and the use of balsamic pills and a stomachic elixir. Tumours
of

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of the feet attending the fever are less to be dreaded than those which succeed it.

10. In a great number of quartans, both epidemic and intercurrent, the following method was pursued with good success:—A saline liquor composed of salt of tartar, sal ammoniac, vitriolated tartar, nitre and cascarilla, of each half an ounce, dissolved in a quart of some simple water, with half a dram of extract of saffron, was given in the dose of a spoonful, thrice on the day of intermission, and an hour or two before the paroxysm. After the third fit, a tincture of *pimpinella alba*, *contrayerva*, *vincetoxicum*, *lignum colubrinum*, *cascarilla*, each half an ounce; extract of *carduus*, *scordium*, salt of tartar, each two drams, made in a mixture of *spiritus theriacalis*, *liquor anodynus*, each one ounce; tartarized spirit of wine, eight ounces, and simple water, four ounces, was given thrice a-day to fifty or sixty drops, in some warm liquor, to promote a gentle sweat. By this means the fever frequently went off; if it continued, a laxative was exhibited in the morning, the saline liquor above mentioned at night, and after some days an electuary of rob of elder, and juniper berries, of each one ounce; Peruvian bark and *cascarilla*, each half an ounce, extract of lesser centaury, sal ammoniac, calx of antimony,

mony, each one dram ; julep of roses, an ounce and a half. This electuary was taken to the quantity of a nutmeg at a time every two hours during the intermission ; costiveness being occasionally provided against by domestic glysters, or gentle laxatives. A relapse was prevented by laxative balsamic pills once a-week, a stomachic tincture once a-day, and a strict regimen. Where a relapse did happen, an emetic of ipecacuanha, blue vitriol and saffron, was given at once, and the electuary subjoined.

Quartan
Fever.



CHAP-

CHAPTER III.

Of the QUOTIDIAN FEVER.§ 1. *General History of the Quotidian.*

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THE Quotidian is an intermittent returning every day. The paroxysm begins with a chilness of the extremities, nausea, and distention of the belly, attended in some persons with a headach, in some with faintings, in others with vomiting, or purging, or both. These are succeeded by a soft unequal heat, slight thirst, and oftentimes an extreme sleepiness; the pulse, before weak and irregular, becomes quicker, but not very hard; the urine is turbid and yellowish. In about ten hours, the paroxysm goes off, with a very slight moisture on the skin, leaving the body dull and heavy.

The regular quotidian begins about four or five in the morning. The erratic comes on at other times of the day, and frequently has no regular period. This last is often epidemic, from an uncommon constitution of the air, particularly

ticularly after a long continuance of intense heat. The regular intermitting quotidian is distinguished from the double tertian and triple quartan, by all its paroxysms agreeing in their period and type, whilst in the others only the third or fourth day's fits correspond.

Quotidian
Fever.



Regular quotidians, from an indisposition of the viscera, are of long duration: the erratic and epidemic, from an ill state of the juices only, are easier of cure. Those which have perfect intermissions are less dangerous, than when a weakness of the body, a low quick pulse, and profuse sweats, remain betwixt the paroxysms. Those which arise from other intermittents, particularly the quartan, are obstinate and full of danger, as they indicate a great disorder of the viscera, and approach near to continuals.

Bilious and pituitous vomiting or purging, at the beginning of a fit, are a favourable symptom, unless the strength has been exhausted by a long continuance of the fever. A gentle sweat likewise at the termination of the paroxysms, and a copious discharge of concocted urine, alleviate the symptoms, and prognosticate a happy solution. If no excretions happen, it is to be feared that the disease will continue long, that the viscera will at length be affected, and cachexies

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chexies and lingering fevers succeed. The imprudent use of astringents, produce the same ill consequences. The warm sudorifics change the intermittent into a remitting or continual fever. Where the disease proves fatal, the cold fits become long and violent, with a depression of the strength, and disorder of the senses; on the third return, the patient expires.

§ 2. *General Method of Cure.*

1. The saline deobstruents, sal ammoniac, vitriolated tartar, the purging salts, are to be exhibited for some days, either by themselves or with the addition of arum root, ginger, pepper, or other acrids and aromatics, and a drop or two of some carminative oil; after which, give a purgative, at such time, that its operation may be over before the next paroxysm.

2. These premised, corroborants, cascarilla, bitters and chalybeates, take place. If the fever returns, and from errors in regimen, proves refractory, the purging mineral waters are to be drank warm, with the interposition of bitters, balsamics, and anticachectics.

Quotidian
Fever.§ 3. *Practical Cautions and Observations.*

1. Intermittent quotidians are to be treated with circumspection, lest they change into long and dangerous diseases. They do not bear astringents, anodynes, large doses of absorbents, the drastic purgatives or sudorifics, or the more powerful emetics.

2. The avoiding of cold, especially to the belly, unwholesome food, wines, passions and anxieties of mind, is of great importance both in the cure and for preventing relapses.

3. As the disease is frequently carried off by a spontaneous flux of the belly, the Physician ought to promote that salutary discharge by gentle laxatives, given some hours before a paroxysm, and should not endeavour to force sweats by too warm regimen or medicines.

4. As spontaneous vomitings give relief, this natural effort is also to be promoted. Fifteen grains of ipecacuanha, with half that quantity of the compound powder of scammony, given at night in a regular quotidian, by gently vomiting, and sometimes purging, have often rendered the fever milder, and made it yield easily to
other

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other medicines. Even when quotidians have continued for a month or longer, and have almost degenerated into flow fevers, a grain of emetic tartar, dissolved, may be given with safety, and generally occasions a plentiful and salutary evacuation.

5. In pains or inflation of the stomach, and loathing of food, cloves, nutmegs, mint, and chamomile, are to be applied to the epigastric region, either in form of powder or boiled in wine. The same applications are likewise serviceable for promoting perspiration in the time of the intermission, and with the addition of spirit of wine, and oil of mint, for alleviating the violence of the cold fits.

6. Febrifuges are to be cautiously used in regular quotidians. In the erratic and epidemic, they are given with safety, and frequently occasion a salutary looseness. Cascarella is to be preferred to the Peruvian bark.

7. The quotidian rarely admits of venesection, the patient being for the most part weak, and in some degree cachectic. If remarkably plethoric, particularly from a suppression of the menstrual or hæmorrhoidal flux; if accustomed to the use of wine; and if the urine is of a high colour,
blood

blood must be drawn in the beginning of the disease : from a neglect in this particular, the intermittent has been aggravated, or changed into a slow, hectic, apostematic fever.

Quotidian
Fever.



§ 4. *Histories of Cases.*

1. A lady about thirty, of a very irregular life, after frequent exposure to cold air in autumn, fell into a fever, which returned every morning with anxiety of the præcordia, cardialgia, headach, weariness and pituitous vomiting, and continued till three or four in the afternoon ; after a few paroxysms, profuse sweats were joined, the appetite; in the intermissions, continuing tolerably good. Purgatives, emetics, saline powders and chalybeates, were exhibited for some time, and the fever at length suppressed by an infusion of bark and wormwood in wine. The appetite being too much indulged, the disorder returned, about a week after, with greater violence, and was again removed by the same means. In half a year there were six relapses, with night sweats, which rendered the body extremely languid, and greatly exhausted the strength. She now began to take the caroline waters, warm ; but the time of intermission being too short for them to pass off, they exasperated the fits. The fever was therefore stopt by

D

bark,

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bark, and a course of the waters subjoined ; bitters, stomachics, and balsamic pills being occasionally interposed. By these means the disorder was effectually removed.

2. A lady about thirty, of a tender constitution, active and full of blood ; who, from abortion in the fourth month, with an excessive hæmorrhagy, and a subsequent suppression of the menses, had become pale, cachectic, costive, and of little appetite ; after walking in the evening, was seized with a fever, anxiety, nausea, and great languor, which, notwithstanding the use of a stomachic elixir, an emetic and a purgative, returned every night rather more violently, with a pressure in the epigastric region, and retchings to vomit, even in the time of intermission, and an icterical colour of the face. A scruple of fixed salt, and twenty drops of spirit of vitriol, with some distilled waters, and a dram of syrup of red poppies, were given in the evening, six hours before the paroxysm ; and a bag of stomachic and carminative plants, boiled in wine, was applied to the stomach : a copious sweat broke out before the fit, and the fever became milder ; on repeating the same medicines it went entirely off. The appetite being too much indulged, the disorder returned with rather greater anxiety, retchings, and a kind of fainting.

fainting. The belly was opened, and the saline mixture, and external application repeated without success; the heat, languor and debility continuing after the fits, so as to threaten a continual fever. After a glyster, twenty-five grains of ipecacuanha, and twelve of vitriolated tartar were exhibited, which operated both upwards and downwards: the fever and other symptoms abated; after which, a mixture of equal parts of cascarrilla, vitriolated tartar, and sal ammoniac, being given every four hours in doses of half a dram, for seven days, all the complaints disappeared.

Quotidian
Fever.



3. A man above sixty, of a thin habit, and sanguineo-melancholic temperament, of a laborious sedentary life, after walking home from an entertainment in a cold rainy evening, at a time when intermittents were frequent, was seized with a mild tertian, which, after the use of saline medicines, was restrained about the fifth paroxysm by Peruvian bark. The patient continued weak and without appetite, slept ill, and complained of a painful weight in the epigastric region after meals. A powder of arum-root, pinpinella alba, gentian, cummin-seed and mace, was given, to the quantity of half a dram twice a-day, to promote digestion; nevertheless, in a few days, a quotidian came on. An electuary

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Chap. 3.



of cascarilla, with rob of juniper, and syrup of citron juice, was then employed; a strong purging succeeded: the electuary was continued in smaller doses, and the fever went entirely off.

4. A lady of fifty, of a tender constitution and full of blood, after a violent fit of passion, with a tremour of the extremities, in the heat of summer, on the approach of the monthly period, took a purgative, which occasioned upwards of fifty stools in twenty-four hours, and next day near twenty: the strength was extremely depressed, the body languid, sleep and appetite failed, and faintings came on, especially in an erect posture. In some days she was seized with a slight chilness and shivering, excessive anxiety, restlessness, and such a tendency to syncope, that she seemed ready to expire: a quickness of the pulse succeeded, with a heat of the body, dryness of the mouth, and moisture of the skin, which continuing for twelve hours, alleviated the symptoms. A febrile commotion, more or less violent, returned every day, sometimes in the evening, and sometimes in the night, preceded and followed by a dry cough. The stomach could scarce bear any thing: analeptics, saline medicines, balsamic pills, stomachic elixirs, and even food, occasioned anxiety, heat, oppression, gripes, and a stricture and burning sensation

tion at stomach. Nothing so better than emulsions made in agreeable simple waters, to which was sometimes added a little bezoardic nitrous powder: water-gruel was given for drink, and the belly kept open by emollient glysters. After a month she could bear medicines better, when the balsamic laxative pills, and balsamic elixir were given in small doses. The febrile commotions became milder, and without anxiety; after which, six grains of cascarilla, with equal quantities of arcanum duplicatum, crabs eyes and calx of antimony, being taken thrice a-day, and a solution of the balsamic pills in a weak lie employed for loosening the belly: all the complaints were in forty days removed, and strength and appetite returned.

Quotidian
Fever.



5. A woman about forty, of a sanguineo-chole-
leric lax habit, accustomed to improper foods,
and the immoderate drinking of tea, complained
of a languor of the stomach, and soon after a
suppression of the menses. Emmenagogues
brought on a quotidian with its usual symptoms,
which was cured in three months; but the men-
ses did not reappear, and the belly remained
bound. In a little time the fever returned, and
has continued for three years, eluding medicines,
asses milk, and mineral waters: it came on ear-
ly in the morning, with sweating almost colliqua-

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Chap. 3.



tive, which lasted till ten, and was followed in the afternoon by a languor and pain of the loins. In the intermissions, the whole body was cold to the touch, the appetite very weak, the face pale and the habit bloated; she nevertheless walked about, and could manage household affairs.

For the cure of this obstinate disorder, a strict regimen must be observed, unwholesome foods and cold air avoided, and a freedom of perspiration kept up. Saline medicines are to be taken in the intermissions, a laxative twice a-week, a stomachic elixir at meals; after which, cascarrilla, with vitriolated tartar, is to be repeated twice a-day.


CHAP.

CHAPTER IV.

Of the ANOMALOUS, EPIDEMIC, MALIGNANT
INTERMITTENTS.§ 1. *General History.*

IN the uncommonly hot and dry summers and autumns of 1726, 1727 and 1728, a variety of these kinds of fevers were epidemic almost throughout Germany. Some suffered one, others two fits a-day. In some, they were at first continual, and changed on the third or fourth day into intermittents; in others, they intermitted at first, and changed afterwards into dangerous continuals. In some, there were excessive evacuations of bilious and pituitous matter, both upwards and downwards; in others, constant sweats and faintness during the remissions or intermissions. Some complained, during the fever, of heat and cold at the same time. Young persons were sometimes highly delirious in the paroxysm; the aged, sleepy. All complained of an anxiety and painful pressure about the region of the stomach; a dull pain of the loins,

Anomal.
Intermitt.



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Chap. 4.

feet and head ; and in the time of intermission, a pain in the nape of the neck, scapulæ, and along the spine. At length, pustules breaking out on the face, or purple miliary eruptions on the body, all the symptoms abated. If a scorbutic miliary fever was joined, the disease proved of longer continuance ; if the eruptions were white, it was generally fatal.

These fevers were most frequent in marshy places ; to persons of an irregular life, or weak constitution ; after bleeding, strong purgatives, immoderate passions ; and to women on the approach of the monthly period. Freedom of perspiration, openness of the belly, avoiding cold moist air and unwholesome foods, were the surest preservatives. Some recovered in a fortnight ; with others, the disease lasted a month. Very few died, unless from some great mismanagement,

§ 2. *General Method of Cure.*

1. In the beginning of the disease, small doses of nitre were given both in the paroxysms and intermissions, along with some agreeable simple waters, to which were added a few drops of dulcified spirit of nitre, or the mineral anodyne liquor. The common drink was water-gruel,
with

with lemon-juice and lemon-peel, or reduced with almonds into the form of an emulsion.

Anomal.
Intermitt.

2. The belly, where costive, was loosened by glysters of water-gruel, with chamomile flowers, oil of almonds, and common salt, and potions of manna, and cream of tartar. In some persons, rhubarb answered better.

3. A sweat was promoted at the end of the paroxysms, where nature was too weak to affect it without assistance, by saturated diaphoretic tinctures in weak menstrua, mixed with an equal quantity of the anodyne liquor, and a few drops of volatile aromatic spirits.

4. When, by these means, the fever had abated, and changed into a true intermittent, it was successfully treated as such. In some cases, the bark was given at the beginning, after a gentle emetic, along with cascarilla, nitre and calx of antimony.

§ 3. *Practical Cautions and Observations.*

1. In all epidemic fevers, especially those which are attended with unusual symptoms, or give suspicion of malignity, it is advisable in the beginning, to exhibit only the more inactive
bezoardics

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Chap. 4.

bezoardics and analeptics; and abstain from bleeding, emetics, and a hot regimen. Solid foods are improper: thin liquors are serviceable, as decoctions of scorzonera, with calcined harts-horn, and syrup of lemon-juice.

2. Strong purgatives and emetics did harm. Bleeding, acrids, sudorifics, and all hot medicines, were apt to change the single intermittents into double, or into continual fevers.

3. Mild evacuants were always serviceable: for in proportion as the belly is bound, flatulent heart-burns and restlessness increase. During the paroxysms, the flatulencies in the intestines are frequently so great as to prevent the admission of glysters.

4. If vomiting, restlessness, and coldness of the extremities, are urgent, a gentle diaphoresis is to be promoted by the mineral anodyne liquor, mixed with a few drops of volatile aromatic spirits, distilled oil of mace, or a small quantity of extract of saffron; and water-gruel with oil of almonds and saffron, or emulsions made with simple waters, used liberally for common drink.

5. If

5. If a diarrhœa happens in the beginning, give rhubarb mixed with nitre; to which may be added, if the flux is violent, a few grains of cascarilla.

Anomal.
Intermitt.

6. If a miliary fever, with copious fetid sweats are joined, a warm regimen and medicines must be studiously avoided, and an equal mild temperature kept up, lest the blood should be overheated and dissolved, or the noxious matter either not expelled, or, after its expulsion, driven inwards; by which the fever, if it had ceased, is kindled afresh, and if mild, exasperated. The retrocession of erysipelatous itching eruptions on the feet, which sometimes happen in aged persons, is attended with the same ill consequences.

7. When the fever has been reduced into a regular intermittent, the first passages are to be cleansed, after a few paroxysms, by a laxative or emetic; after which, the bark is to be exhibited, in doses of about six grains, three or four times a-day, with an equal quantity of cascarilla and of nitre.

8. These epidemic fevers differ in different years, and the Physician ought carefully to attend to the genius of each.

C H A P-

CHAPTER V.

Of the SEMITERTIAN FEVER.§ 1. *General History.*

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Chap. 5.

BY the semitertian fever is understood a combination of an intermitting tertian with a remitting quotidian.

In this fever, the patient is constantly hot and feverish, but not thirsty: an exacerbation of the fever happens every evening, and a more considerable one every second day, generally in the forenoon, preceded by shivering. The strength is depressed, but not so much as in the malignant intermittents; the appetite fails; sleep is wanting; generally a cough is joined, by which a little crude matter is brought up; and not unfrequently a pain of the back, and a pain and swelling of the belly. Many are seized, on the approach of the tertian paroxysm, with a nausea and heart-burn, some with vomitings, some with faintings, and others with a delirium. The urine, after the fit, is turbid and high coloured, at other times thin and watery.

The

The semitertian, which is partly of an inflammatory nature, is more dangerous than simple intermittents, but of shorter duration, generally terminating on the ninth or thirteenth day. If it continues long, the inflammation is followed by suppuration, and the disease changes most commonly into a hectic; if there be strong obstructions in the mesentery, into a dropsy; sometimes, but rarely, into a single or double intermittent.

Semiter.
Fever.

If the fever proves salutary, its solution, besides a copious sweat at the end of the paroxysms, is usually a bilious, pituitous or bloody flux of the belly on the seventh day; or sharp pains in the abdomen, returning at certain intervals, sometimes followed, and sometimes not, by a sanious and purulent diarrhœa, or a copious discharge of black blood.

A heat about the præcordia, tension and pain in the whole region of the stomach, vomiting, hiccup, restlessness, and tremor of the hands, are unfavourable symptoms, discovering that the inflammation has spread to the stomach. If the disease prove fatal, the patient dies in a violent tertian fit: on dissection, one or more of the viscera are always found inflamed, and in part mortified.

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Chap. 5.

§ 2. *General Method of Cure.*

In the cure, regard must be had to the efforts of nature ; which, if deficient, are to be promoted ; if immoderate, to be restrained. Dilution is always necessary : a decoction of cichory-root, scorzonera, sarsaparilla, hartshorn shavings, and raisins, is to be drank freely ; with the addition, or interposition, of small doses of nitre, for abating the heat, and removing the inflammatory disposition. The belly is to be opened by solutions of manna, with cream of tartar or rhubarb ; or aloetics joined with bitter extracts and gummy resins. For promoting perspiration, give a mixture of scordium, with an equal quantity of the mineral anodyne liquor.

§ 3. *Practical Cautions and Observations.*

1. Purgatives, especially at the beginning, increase the inflammation, and dispose the disease to a speedy and fatal issue. Even the deterfive salts have no place by themselves, in any considerable doses ; nitre excepted, which, dissolved in proper liquors, is in some cases advantageously given to fifteen grains.

2. If the fever comes on with costiveness, the intestines must be evacuated by emollient, carminative,

minative, soapy glysters, otherwise vomitings may be expected, especially where the biliary ducts are full of acrid bile. In the decline of the fever, give the laxatives above prescribed.

Semiter.
Fever.

3. Emetics are to be used with caution, lest they bring on a hiccup, or dispose the stomach to inflammation. If the patient inclines to vomiting, warm water with salt, or a slight antimonial stimulus, are sufficient to promote it.

4. Venesection scarcely has place, unless in plethoric habits, great heat, and suppressions of critical hæmorrhages; in which cases, unless blood be taken away, a mortal inflammation of the intestines is apt to succeed. The blood should be drawn early; the sooner, the speedier is the cure.

5. Hot regimen or medicines heighten the fever, disturb the salutary evacuation by the intestinal tube, and exhaust the strength in profuse sweats.

6. Absorbents, astringents, and Peruvian bark, have occasioned mortal inflammations, or slow hectic fevers. Bitters, chamomile flowers, with milfoil tops, are of service.

7. Ex-

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Chap. 5.

7. Exquisite pains of the abdomen, and immoderate diarrhœas, are relieved by the milder diaphoretics, and warm spiritous liniments applied externally. Opiates are not to be ventured on.

8. The fever, when removed, is very apt to return, and proves then more dangerous than at first. A strict regimen is therefore to be observed, digestion promoted by stomachics, and a freedom of perspiration and openness of the belly kept up.

9. The same method of cure is to be observed in remitting tertians, quartans, and quotidians.

§ 4. *Histories of Cases.*

1. A lady of twenty, of a tender constitution and sedentary life, much addicted to sweetmeats, milk, salads, and fruits, in the beginning of autumn, after being troubled for some weeks with the fluor albus, on exposing the body when greatly heated by exercise to the cold night air, complained of an universal languor, and a pain of the back and head. Next morning, a shivering came on, with great anxiety, nausea, and a stimulus to vomit and stool; followed by heat, a small quick pulse, and dryness of the skin. A
gentle

Semiter.
Fever.

gentle moisture relieved the complaints, which were aggravated again in the evening after a slight chiliness. Next day she was better, and the urine crude and thin; but an internal heat, and dryness of the mouth, marked a degree of fever. In the afternoon the fever increased, and every second morning there was a paroxysm like the first, till the seventh day; when a rumbling and inflation of the belly, and tension of the hypochondres, were followed by upwards of ten slimy biting stools. The looseness continued above a week, with extreme languor, particularly in the night, coldness of the external parts, and heat of the internal, a violent cough, loss of appetite and sleep. Absorbent, cooling, nitrous powders had been given from the beginning without service, and seemed now to increase the complaints, and bring on a cardialgic inflation of the stomach. A gentle diaphoretic mixture, with a little diascordium, being given every two hours, the stools became fewer, and a warm moisture broke out on the skin. An infusion of veronica, scabious, chamomile flowers and anise-seed, being taken as tea, and a decoction of hartshorn and barley with citron for common drink, with the addition of a small quantity of nitre occasionally, all the symptoms were removed in a fortnight. The supervention of a slow fever, which a slight internal heat after meals seemed to threaten,

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was

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Chap. 5.



was prevented by laxative balsamic pills, with an aperient saline powder, and stomachic elixir.

This case was improperly treated at the beginning by refrigerants; regard must be had, in these kinds of fevers, to the cuticular excretion.

2. A lady of forty, of a tender and extremely sensible constitution, subject to miliary eruptions in the autumn for some years; after passion and exposure to cold, was seized in the evening with a shivering and pain of the head and back, followed by a heat of near sixteen hours. Seven or eight hours after this, a violent shivering came on, with anxiety of the præcordia, retching, and depression of the strength: this fit, with the hot one that followed it, lasted near twenty hours. The paroxysms returned every evening, and every second day. A glyster being injected, and a mild diaphoretic saline mixture exhibited before the remissions, the fever abated a little; but a pain of the belly acceded, with costiveness and extreme anxiety. Laxative balsamic pills were continued for some days in the remissions, and the common drink impregnated with a visceral elixir: the stools were copious and very fetid. The diaphoretic mixture was again repeated, with bezoardic powders, and a small quantity of cascarilla. Itching miliary eruptions

ons broke out over the whole body, the urine deposited a sediment, and in thirteen days the fever went off.

Semiter.
Fever.



3. A man of fifty, robust and plethoric, accustomed to hard salted foods and the use of wine, in autumn, when dysenteries were frequent, of which he was very fearful, was seized in the evening with chillness and shivering, followed by gripes and heat, which continued the greatest part of the night. In the morning, he had another cold fit, with nausea, anxiety, and tension of the belly, succeeded by a hot one. A purgative occasioned fifty stools, with severe gripes; and from cold during its operation, the fever was exasperated. The purging continued, the stools were bloody, and at length had a cadaverous stench, sleep failed, the patient complained of internal heat, became delirious, and on the sixth day expired in convulsions. If the purgative had been omitted, some blood taken away, and gentle diaphoretics with nitre exhibited, he might probably have been preserved.

4. A man of forty, of a tender and bilious constitution, fond of sweetmeats, and accustomed to drink at dinner brandy for wine, fell into a semitertian, with great weakness, pain of the back part of the head, thirst, heat, nausea, and frequent

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gripes. On the 7th day, a diarrhœa came on, and continued for some days, on which the fever abated. The flux being stopt by astringents, the patient became ictical, the belly bound, the excrements white, the urine black and oleaginous. The fever now went entirely off, and the appetite and strength returned: the jaundice yielded to rhubarb with turmeric, and an aperient liquor composed of salt of tartar, sal diureticus and arcanum duplicatum. Jaundices succeeding a fever are not unfrequently its solution.

C H A P-

CHAPTER VI.

Of the CATARRHAL FEVER.§ 1. *General History.*

BY the Catarrhal Fever is understood a quotidian remittent, with a humid cough.

Catarrhal
Fever.



Catarrhal fevers generally come on in the evening, with a chilness and shivering of the extremities, costiveness, inclination to urine without any considerable discharge, weakness of the head, universal languor, increase of appetite, thirst, difficulty of deglutition, tickling in the larynx, heat of the nostrils and fauces. These symptoms are followed by sneezing, a weight at the breast, heat and quick pulse, burning heat and inflammation of the fauces, violent cough, defluxions, restlessness. In the morning, a sweat brings a remission of the complaints; a dulness and heaviness of the body, and want of appetite, remaining.

These fevers arise chiefly from colds or irregularities of perspiration: they are most frequent

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quent in wet, variable springs and autumns, to young persons of a lax, spongy, phlegmatic habit, after intemperance, watching, and repression of cutaneous eruptions.

Where impure juices abound, as in scorbutic habits, these fevers are proportionably the more violent and of longer duration. In hypochondriacal persons, they are usually attended with great anxiety of the præcordia, difficulty of breathing, pain and distension of the hypogastric region. In those who are full of blood, and live intemperately, the fever runs higher than in the opposite circumstances. Women, if the menses are suppressed, suffer great anxieties, with faintings at times, a remarkable weakness, and alternations of cold and heat, particularly in the night.

Catarrhal fevers, properly treated, are void of danger: in some disorders of the head, particularly headachs and hemicrania, if the discharge from the nostrils be free, they prove salutary. They generally go off entirely in seven or fourteen days, and oftentimes much sooner. The solution is sometimes by a spontaneous sweat, sometimes by an expectoration of viscid matter, or a flux of mucous serum from the nose; in some persons, by a looseness; in others, by a plentiful

plentiful discharge of ponderous urine, containing at least twice as much solid matter as urine in its natural state.

Catarrhal
Fever.



§ 2. *General Method of Cure.*

The indications of cure are, to obtund the acrimony of the lymph, to promote perspiration, and, towards the end of the disease, the excretion of mucus. The first is answered by oil of almonds, spermaceti, emulsions, liquorice, and such like medicines: if the humours are extremely thin and corrosive, gentle opiates, as the storax pill, are to be given at night. Perspiration is to be kept up by the milder diaphoretics, warm infusions, exercise, and frictions, particularly in the mornings. The discharge of mucus from the fauces may be promoted by pectorals, figs and raisins reduced into a kind of syrup by burning spirit of wine upon them, compositions of ammoniacum, myrrh, benzoin, saffron, liquorice, and oil of anise-seeds, whose efficacy may be occasionally increased by the addition of dulcified spirit of sal ammoniac. Viscid phlegm stagnating in the cavities of the nostrils, is attenuated by volatile salts mixed with a little oil of marjoram.

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§ 3. *Practical Cautions and Observations.*

1. The catarrhal, like most other fevers, is to be treated by gentle means: the more powerful and hot medicines, and a too warm regimen, avoided; and also coolers, acids, as well as every thing that may impede perspiration. Opiates are to be given with caution, especially if the head be weak and heavy, the belly bound, and the patient of an advanced age.

2. The food should be sparing; the common drink, a decoction of barley or oats, with hartshorn shavings, liquorice and raisins. In the decline of the disease, if the excretions succeed, wine may be allowed: even the liberal use of generous wines is sometimes of service, by promoting the circulation and perspiration.

3. If the heat be intense, as it commonly is in choleric and plethoric persons, and a burning of the internal parts be complained of, emulsions are to be drank plentifully, and a few grains of nitre mixed with the diaphoretic powders.

4. Costiveness is provided against by gruels with manna and prunes, or emollient glysters.

The

The laxative balsamic pills likewise, mixed with the storax pill, may be exhibited at bed-time, both for loosening the belly and abating a dry cough.

Catarrhal
Fever.

5. In obstinate moist coughs happening in the decline of the disease, give full doses of manna, or the balsamic pills, or the pil. Rufi. But in the beginning, abstain from purgatives, especially those of the more acrid kind; which, by inviting a flux of sharp serous humours to the intestines, occasion gripes, diarrhœas, and endanger a hectic fever.

6. Vehement coughs are abated by oil of almonds mixed with the pectoral syrup; or an electuary composed of oil of almonds, three drams; spermaceti, one dram; white sugar-candy, syrup of violets, of each one ounce; saffron, one scruple; oil of anise-seeds, of mace, and of saffrafras, of each six drops.

7. If the fever be accompanied with a suppression of the menses, expectorants and sweets are to be abstained from, the belly loosened by proper glysters, and a grain of saffron, or a few grains of flowers of sulphur, added to the diaphoretic powders.

8. The

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8. The unusual symptoms arising chiefly from an inflation of the stomach in hypochondriacal persons, are most effectually relieved by emollient and carminative glysters, and carminative tinctures joined with pectorals.

9. If a laxity of the lungs remain after the cure of the fever, so as to occasion a preternatural spitting, add some grains of cascarilla to the bezoardic powders, or give a few drops of the balsamum vitæ at bed-time.

10. Bleeding, in plethoric habits, is an excellent preservative ; but, after the fever has come on, it renders it of longer continuance.

11. In violent and long continuing coughs, the pectoral sweets and inkrassants, given in large quantity, dispose to cachexies, and even to consumptions, by palling the appetite, and weakening the tone of the lungs.

12. Catarrhal fevers, if a perfect solution has been obtained, are not very apt to return. Nevertheless, to prevent their giving rise to other disorders, the convalescents ought to observe a strict regimen, drink warm infusions, and use moderate exercise for promoting perspiration, and occasionally loosen the belly with manna.

Catarrhal
Fever.§ 4. *Histories of Cases.*

1. A man of a thin habit, subject for many years to hypochondriacal affections, after walking home from a plentiful entertainment in a cold moist evening in the spring, was seized with a shivering, universal languor, and great heaviness of the head. On drinking some warm chocolate, anxiety and restlessness increased, with a kind of suffocatory straitness in breathing, and a painful inflation of the right hypochondre. Bezoardics, volatile spirits, and diascordium, did harm. On the fourth day, the belly, which was bound, having been loosened by a glyster, all the threatening symptoms went off, and the patient complained only of a cough, a painful heaviness of the head, hoarseness, and heat in the evenings. These were abated by infusions of veronica, liquorice and fennel-seeds, a bezoardic powder with one grain of extract of saffron and wild poppies at night, the pectoral pills every other night, a few grains of nitre and amber at times, and an electuary of oil of almonds, spermaceti, saffron and oil of anise-seeds; by which medicines, a gentle sweat and expectoration were promoted. A weakness of the stomach, and painful oppression after meals, which still continued, with a sharp cough and viscous spitting

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spitting in the night, which sometimes occasioned vomiting, were removed by riding, laxative balsamic pills, and volatile aromatic spirits taken at meals.

This disorder was only a benign catarrhal fever; the severe symptoms attending it at first, and its long continuance, being owing to the hypochondriacal disposition of the patient.

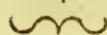
2. The severe frost in the winter of 1709, was thawed by mild southerly winds in March. In April and the beginning of May, great numbers were seized with a fever, extreme languor, thirst, nausea, and violent cough, which in some persons threatened suffocation. These symptoms increased in the evenings, and occasioned great restlessness: some complained of alternate shiverings, and heat of the extremities. In some, the disorder lasted long, with the frequent appearance and disappearance of rough red miliarry spots. In others, red, burning, itching efflorescences, like those from the sting of nettles, broke out on the fourth day, and abated both the cough and the heat. Others, particularly phlegmatic women full of blood, and of an advanced age, suffered exquisite rheumatic pains. Those who went abroad too early after recovery, were seized with a dulness, vertigo, pain and heaviness

heaviness of the head, gravedo, languor, and straitness of breathing, very difficult of cure. Where there was any hereditary indisposition of the lungs, a cough with purulent and bloody spitting, and oftentimes a true phthisis, succeeded. From the use of purgatives, the disease was both prolonged and exasperated; sharp pains of the belly came on, with extreme weakness, faintings, and cold sweats of the extremities. Those who observed a proper regimen, and took frequently mild diaphoretic powders, with half a grain, or a grain, of extract of saffron, and warm decoctions, soon recovered.

Catarrhal
Fever.



3. A man of forty, of a thin nervous habit, and irritable disposition, accustomed to irregularities and high living, who had never been blooded, was long subject, in spring and autumn, to catarrhus defluxions; which came on with shivering, heat, coldness of the extremities, pain of the head and back, restlessness, and weariness of the whole body; and continued frequently for some weeks, with pains of the limbs and neck. Bleeding before the Equinoxes, with a course of milk and mineral waters twice a-year, ptisan for common drink, a mild diaphoretic powder twice a-week at bed-time, and a warm infusion in the morning before rising to promote a gentle sweat, prevented these complaints, which returned again as often as the venesection was omitted.

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4. A military gentleman, upwards of fifty, full of blood and juices, after exchanging the air and aliments of Italy for those of Germany, had frequent severe cholic pains, which were removed by bleeding, a gentle purgative, and drinking the purging waters for some weeks. Next spring, after drinking wine too freely, and exposure to cold, he was seized with an almost continual fever, accompanied with a cough and catarrh, headach, anxiety, and restlessness. In three days the fever remitted, but still returned in the evenings, preceded by a shivering: in the remissions, gripes were complained of, and a distension of the belly from flatulencies, which the succeeding heat relieved: sometimes he was a little delirious in the fit, and the face red. The pulse being full and large, a vein was opened in the foot during the remission, and carminative emollient glysters injected; after which, the cure was completed, in three weeks, by gentle diaphoretic nitrous powders, emulsions, and a moderately warm regimen.

5. A young lady of a tender constitution and spongy habit, was seized, in the spring, with a shivering, preternatural heat, languor of the whole body, and anxiety of the præcordia: about the third day, the glands of the neck swelled, the fauces were slightly inflamed, and a
cough

Catarrhal
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cough and hoarseness were joined. On taking six grains of ill edulcorated aurum fulminans with ten of calx of antimony, faintings, extreme anxiety, restlessness, and coldness of the extremities came on; which received no relief from alexipharmics, fixed or volatile: four stools succeeded, of a deep green colour, and a matter of the same kind was thrown up by vomiting. The anxieties and faintings continued, with a burning heat and fixed pain in the præcordia, exasperated by every thing taken into the stomach, till the patient, on the seventh day, expired.

6. A man about forty, corpulent, of a studious sedentary life, long subject, in spring and autumn, to coughs and defluxions, with a slight febrile heat, after eating frequently and freely of baked quinces, by which the belly became bound, and after exposure to cold, was seized in the evening with shiverings and heat; and next morning complained of a kind of painful tension in the neck and shoulders, and a sharp pain in the forehead, with a heat and dryness of the nostrils. Gentle diaphoretics and nitrous medicines gradually relieved the febrile symptoms; but the pain continued over the eyes, so as almost entirely to prevent sleep. Volatile salts, impregnated with the oils of marjoram and lavender, being frequently smelt to, and warm infusions

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fusions drank, the pain abated; at length, the discharge of a yellowish viscous liquid from the nostrils, in the quantity of some drams, several times a-day, proved a complete solution.

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CHAPTER VII.

Of the VARIOLOUS FEVER.§ 1. *General History of the Variolous Fever.*

THE variolous fever or small pox, is an acute contagious disease, in which, by a critical commotion, a matter is thrown upon the surface, producing pustules.

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The regular distinct small pox begin with a cold shivering, yawning, stretching, spontaneous lassitude and faintness. A burning heat and fever succeed; with a violent pain of the head, back, and loins, and a slighter pain at the pit of the stomach upon pressure; a nausea, sickness, or vomiting; a tendency to sweat in grown persons, which encouraged rather aggravates than relieves the complaints; sometimes a drowsiness and stupor; and in children, frequently, convulsive or epileptic fits; which commonly presage, that the pustules will be large, and the disease favourable.

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On the fourth day inclusive, sometimes later, but rarely sooner, reddish pimples, like flea-bites or small pin-heads, appear on the head and face, then on the neck, hands, arms, breast, and by degrees on the whole body. The fever and other symptoms abate as the eruptions increase, and sometimes go off entirely, the heat and pulse being by the sixth day almost natural.

About the seventh or eighth day, the white spaces between the pustules grow red, swelled, tense, and painful; first on the face, next on the hands and fingers, and lastly on the feet. Sometimes the eye-lids are distended, so as to close the eyes, and resemble an inflated bladder. Sometimes intense pain in the eye-brows, jaws, knees, or soles of the feet, greatly increase or renew the febrile symptoms.

The pustules on the face, hitherto smooth and red, become rough and whitish, with rose-coloured margins, and discharge a laudable pus. As the suppuration advances, they grow every day rougher and yellower; whilst those on the hands and other parts turn smoother and whiter.

On the eleventh day, the swelling and inflammation of the face abate; and the eruptions, now fully matured, and about the size of a
large

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large pea, begin to dry into scabs, which about the fourteenth or fifteenth day fall off. They are followed by a scurf or branny scales, repeated successions of which sometimes, though rarely, occasion pits. The pustules on the hands, feet, and legs, continue white and fresh a day or two longer than those on the face, and at length burst.

The belly is most commonly bound through the whole course of the disease, though not unfrequently a few loose stools happen with advantage. The tendency to sweat continues till the pustules have ripened, and if the excretion is considerable, retards their maturation. Sometimes highly inflammatory symptoms are relieved by spontaneous hæmorrhages. The blood, before the eruption is completed, and during the inflammation of the face, &c. proves generally fizy, and covered with a tough crust.

In the regular confluent small pox, the fever and its symptoms are more violent than in the distinct, and continue for several days after the eruption, with little or no abatement. The eruption happens most commonly about the third day, frequently earlier, seldom later, unless retarded by some uncommonly violent symptoms; as intense pains in the loins, limbs, stomach,

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Sc. Sometimes the pustules come out like an erysipelas, and sometimes like the measles; from both which, they are readily known by the time of their appearance. They do not rise and fill, but remain depressed, flat, and run together, especially on the face, covering it like a red bladder, and making it swell sooner, and to a much greater degree than in the distinct sort. About the seventh or eighth day, they grow whiter, and look like parchment glued to the face: the pellicle turns gradually rough, yellow, brown or blackish, and at length falls off in large scales. A succession of corrosive scales occasions large pits, and frequently seams in the skin.

A salivation almost always attends the confluent small pox in adults, and a looseness in children; but there is less tendency to sweat than in the distinct. The salivation sometimes begins with the eruption, sometimes not till two or three days after it. At first, the matter is thin, and easily and plentifully expectorated: about the eleventh day, it grows more viscous, is raised with difficulty, and by degrees entirely stops, the discharge being supplied by the swelling of the face not yet subsided, that of the hands now beginning, and of the feet which soon succeeds. The looseness does not attack children so early

as

as the salivation does adults ; but whenever it begins, it continues, unless imprudently stopt, to the end of the disease.

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The salivation stopping and the incrustation completed, a secondary fever supervenes, which continues for several days, with symptoms more or less favourable, as the number of pustules, or the quantity of purulent matter reabsorbed into the blood, is less or greater. In this fever, as well as the eruptive, the blood is usually fizy, and often more so than in the distinct pox.

Some distinguish another kind of regular small pox, by the name of *contiguous* or *coherent*, from the pustules being too close together to be called distinct, yet not running into one another so much, or remaining depressed, as in the true confluent sort. The symptoms approach to those of one kind or the other, according as the pustules do : sometimes a salivation attends, and sometimes not, but almost always more or less of a secondary fever succeeds, which scarce ever happens in the distinct species.

Malignant small pox are preceded sometimes by a low nervous fever, with great sinking of the spirits, depression of the strength, and a weak quick fluttering pulse : sometimes by a fe-

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ver of a putrid nature, in which the blood is colliquated, and remains fluid and uniformly mixed, after standing many hours. Sometimes petechial spots are intermingled among the various pustules, and the pustules become livid, black, gangrenous, bloody, and this sometimes when they are few and distinct, as well as when numerous or confluent: in these circumstances, hæmorrhages of thin blood are frequent from the nostrils, eyes, and other emunctories, particularly the urinary passages. Sometimes at the very beginning of the disease, little tubercles break out, full of black blood, resembling those from a hard pinch of the skin, to which livid and purple pestilential spots quickly succeed. Sometimes, instead of pus, the pustules fill with a thin watery semipellucid serum, and hence are named serous, ichorous or crystalline pox. From the confluent pustules of this species, the serum sometimes exudes or is reabsorbed by the lymphatics, leaving soft empty vesicles, called by some *siliquous pox*. Sometimes the pustules never fill at all, but remain hard and prominent like warts.

The small pox prove favourable, if the pustules are distinct and not very numerous; if they come out, suppurate and dry up regularly; if sufficiently elevated above the skin, with a red circle

circle round them, and filled with laudable pus ; Variolous
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 if, when the eruption happens in the upper parts, the fever and its symptoms notably abate : in these circumstances, nature often affects a cure without any assistance from medicine. Of this kind generally are the small pox which happen in mild springs, where the body is not replete with blood and serum, or the juices impure.

The disease proves malignant, if the pox come out too soon or too late ; if they remain depressed, and cannot be made to suppurate ; if many of them are livid, some black, or surrounded with a black edge ; if the quick pulse and restlessness continue, after sufficient eruption ; if the patient, in an erect posture, is ready to faint ; if the pustules are bloody, or a bloody flux or bloody urine come on : scarce one in twenty recovers from symptoms of this kind : the whole mass of blood is colliquated and corrupted, as appears from its remaining fluid after dissection. Petechial spots, or small rough miliary eruptions, intermingled among the pox, are likewise a mark of the intimate corruption of the blood and lymph. In some persons, the malignant and putrefactive nature of the disease is first discovered after the pox have dried up, by their leaving a slow fever, and foul fistulous ulcers, extremely difficult of cure. These virulent

F 4

kinds

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kinds of small pox are generally epidemic from a long continuance of moist, foggy, calm weather, particularly in places where stagnant waters corrupt and infect the air with putrid exhalations. If, at the same time, the patient is of an impure cacochymic habit, the malignity is farther increased.

The pox are found less dangerous than this last, but more so than the first kind; if the pustules are confluent, especially on the face and hands; if any happen in the internal parts, as the nostrils, fauces, or œsophagus; if a high fever arises in the suppuration, with a burning heat in the hands; if the head greatly swells; if the urine be thin, and in large quantity; if there are profuse sweats, or a copious salival flux; if, when the pustules have dried up, lesser ones succeed, and the suppuration and exsiccation are long protracted; if the skin be tense, and the pustules seated deep; if the patient is grown up, the season, autumn or winter, preceded by a hot dry summer: these kinds of pox, without great precaution, leave other diseases behind them.

There is likewise suspicion of danger, if sharp and obstinate pains of the back, arms, loins and feet, happen at the beginning, or before the eruption;

eruption ; if the pox begin to appear on the first or second day, especially if rough exanthemata, like pin-heads, are intermingled with them ; if they presently disappear, and afterwards return ; if the face does not swell on the third or fourth day, or if, after swelling, it sinks again ; if in adults, a great degree of delirium and difficulty of deglutition happen before the eruption ; if during the suppuration, first sleepiness, and afterwards a disorder of the senses comes on.

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A flux of the belly, though copious, is not much to be feared : this symptom has continued through the whole course of the disease, without impeding the eruption, or occasioning any ill effects. A diarrhœa proves critical in the variolous, as well as the petechial malignant fevers.

Where the small pox prove fatal, the patient is generally carried off by convulsions, from the exquisite heat, pain, and tension in the arms and face ; sometimes by a suffocative catarrh. Sometimes, especially if the disease be malignant, on placing the patient upright he faints, the pustules disappear, convulsions, and in a few hours, death succeed. Adults, who during the fever had suffered a weight of the head, watchfulness, and disorder of the senses at times, have,
after

Part I. after the pox were dried up, died suddenly of
Chap. 7. an apoplectic fit.

It is observable, that the small pox are highly contagious ; hence the method of communicating them by inoculation, that is, by putting matter, taken from the pustules, into a slight wound made in the skin of a person who has not had the disease before.

§ 2. *General Method of Cure.*

Nature proceeds more regularly in the cure of this than of any other disease ; and wants little assistance from art, provided the viscera and juices are so disposed as not to obstruct the correction and expulsion of the morbid matter. The only indications are, (1.) To obtund the acrimony of the humours, and abate inordinate motions before the eruption, by small doses of nitre, with cinnabar and absorbents, whey, emulsions, barley-water, or other diluents, to which may be added a little syrup of meconium. (2.) To promote the eruption and suppuration, where nature appears languid, and the pustules do not rise, by gentle diaphoretics, as contrayerva root, which, with the addition of a small quantity of saffron, may be infused in a mixture of three parts of simple alexiterial water, and one
of

of dulcified spirit of nitre, or a decoction of myrrh, with saffron and a little alkaline salt. (3.) To resist putrefaction in the decline of the disease, and carry off the remaining impurities, by myrrh, and compositions of aloes, with gummy resins and balsams.

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§ 3. *Practical Cautions and Observations.*

1. Anxious vomitings, which often happen at the beginning, especially to children, are restrained by the mineral anodyne liquor, given either by itself, or mixed with some drops of a volatile aromatic spirit. The anodyne liquor is likewise serviceable in convulsions: the belly must be opened by an emollient glyster, for costiveness increases the convulsion.

2. If the heat be violent, the dose of nitre is to be increased. The tinctura rosarum, or tincture of the four cordial flowers, made in phlegm of vitriol, are likewise of much service, particularly in young persons full of blood, and where malignant small pox, tending to putrefaction, are epidemic.

3. Pustules almost always happen in the fauces, pharynx and larynx, occasioning there great heat, pain, a difficulty of deglutition, and sometimes

Part I. sometimes aphthæ. This troublesome accident
 Chap. 7. is relieved by gargarisms of barley-water, with
 syrup of mulberries and a little nitre: to abate
 the heat and pain, the pustules and aphthæ are
 to be occasionally touched with mucilage of
 quince-seeds made in rose-water.

4. To preserve the eyes from the injury of
 pustules, a double linen cloth, dipped in a cam-
 phorated tincture of saffron, made in spirit of
 roses, and afterwards slightly dried, may be ap-
 plied to them as soon as the eruption begins; or
 the eye-lids may be occasionally moistened with
 a mixture of rose-water, some drops of dulci-
 fied spirit of vitriol, and a little camphor. If
 pustules come out, and leave a pellicle on the
 eyes, the excrescence is to be immediately con-
 sumed, in the decline of the disease, by fre-
 quently touching it with a fine feather, dipped
 in a mixture consisting of an ounce of rose-wa-
 ter, two drams of spirit of rosemary, four grains
 of blue vitriol, and twelve grains of sugar of
 lead. This liquor, without the vitriol, is like-
 wise of much service in hot sharp defluxions,
 and redness of the eyes, which often succeed
 the pox.

5. If the pulse be strong and full, the face
 red, the veins turgid, a weight and pain in the
 head

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head and loins complained of, the patient young, of an active disposition, accustomed to the use of wine, to venesection, or if critical evacuations are suppressed, bleeding, on the first or second day, immediately abates the anxiety and oppression at the breast, promotes the eruption, and occasions the symptoms which follow it to prove more mild. A redundancy of blood prevents the full excretion of the variolous matter; hence the pustules are few; so much remaining in the body as to produce, towards the decline, a variety of convulsive disorders, deliria, suffocative catarrhs, or even an apoplexy. On the other hand, if the disease be attended with vomiting at the beginning, with a cough and flux of the belly, if the pulse be hard, low and weak, the vessels sunk, the patient a child, languid, phlegmatic, corpulent, or apt to faint on bleeding, forbear from venesection, lest too great a diminution of blood occasion a retention of the morbid matter, and dangerously prolong the eruption.

6. It is disputed, whether emetics are proper in the beginning of the small pox. Medicines which plentifully evacuate not only crude juices from the first passages, but likewise impure and bilious humours from the liver, if given before the attack of the disease, cannot but contribute to

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to prevent or render it milder. They have likewise place even on the first day of the illness, wherever immoderate and improper food, a nausea, bitter taste in the mouth, and eructations, indicate a redundance of noxious humours in the first passages; in such cases, on the exhibition of a gentle emetic, the anxieties, which would prevent the eruption, go off, and the pustules come out freely between the third and fourth day. For adults, a grain or two, for children, from a quarter of a grain to one grain, of emetic tartar, may be dissolved in mint-water or cinnamon-water; to which, if it is wanted to operate likewise downwards, a suitable quantity of manna may be added. But to exhibit a medicine of this kind promiscuously, every other day, is an irrational practice.

7. With regard to purging: before the approach of the disease, laxatives are proper, but not the stronger cathartics nor mercurials, especially in children. Manna, or a decoction of tamarinds with rhubarb, are the most eligible: where there is a suspicion that the larger intestines are stuffed with hard scybala, an emollient glyster must be premised. Through the whole course of the disease, the belly must not be suffered to remain bound too long, as eight or ten days; for if it be, especially in children, either

either suffocative catarrhs will happen, or a miliary fever, with great depression of the strength, and other violent symptoms; hence a flux of the belly, which often continues throughout the illness with good effect, is never to be restrained. Nevertheless during the eruption, though the belly should be bound, as it usually is, all laxatives, and even glysters, must be abstained from; which last, injected at this period, have been restrained for several days, and occasioned extreme oppressions.

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8. Whether laxatives are proper in the secondary fever, during the suppuration, has been disputed. FREIND has endeavoured to show their utility from a variety of observations, but allows only a decoction of manna: nor is this practice blameable, provided the belly has been bound from the beginning, the spitting copious during the suppuration, and the breast loaded with humours, so as to occasion an anxiety and difficulty of breathing. Emollient and laxative glysters are to be preferred; but where these prove insufficient, manna is given to good advantage, especially to children, in whom the primæ viæ and præcordia abound with viscid juices. Sometimes even emetics are proper: children at the breast, of a year old, when the difficulty of breathing, either before the eruption, or during the

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the suppuration, was so great as to endanger suffocation, have received immediate relief from a gentle vomit of one-sixth or one-fourth of a grain of emetic tartar, dissolved in some simple water, with the addition of a little syrup of violets. It is to be observed, with regard to manna, that however serviceable it may be at the beginning, and in the increase of the disease, it is often injurious in the decline, producing excessive flatulencies and anxieties, oppressing the breast with viscid humours, and sometimes occasioning ulcerations in the skin.

9. Before and during the eruption, all acrid medicines, the warmer alexipharmics, volatile spirits, and a hot regimen, must be avoided : for by these, the blood and humours are greatly agitated ; the heat, anxiety, convulsions, and delirium where this symptom happens, are increased ; the variolous matter acquires a greater degree of acrimony and subtilty ; the pox are apt to change from a favourable to a malignant kind ; and so far is the eruption from being rendered equable, that the matter, expelled too soon, and without sufficient preparation, returns into the habit again, to the great danger of the patient. Even warm liquors, as tea or coffee, liberally used, do harm ; too much diluting the blood, and exhausting the strength in profuse sweats.

sweats. Both the regimen and medicines, therefore, must be temperate. Nevertheless, regard must be had herein to the disposition of the patient: if sluggish, medicines which promote the expulsion are to be allowed, in small repeated doses; and, about the sixth or seventh day, the eruption may be assisted by a somewhat warmer regimen.

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10. Purity of air is extremely conducive to the cure. Lying in low places, where the air is confined, or infected with the putrid exhalations arising from other persons in the same disease, and a hot regimen, are the principal causes of the mortality occasioned, even by the favourable kinds of small pox, among the common people. If the patient be well-covered up, the windows may be occasionally opened, with safety and advantage. A piece of camphor may likewise be hung about the neck, for correcting the putrid effluvia; or, if its smell cannot be borne so near, it may be placed in a remoter part of the room.

11. If the bed or linen are to be changed whilst the patient sweats, the fresh ones should be thoroughly dried and warmed, by standing some time in a hot room; the skin being now exquisitely sensible of the slightest impressions of cold, which are apt to repel the pustules, to the hazard of the patient's life.

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12. Wherever the pustules, from a deficiency of natural strength, from a fright, cold, or an erect posture, suddenly subside, death ensues in a little time, unless immediate relief is procured by analeptics and expellents. In these cases, I have used with good success the liquor cornu cervi succinatus and anodynum minerale in simple cinnamon and veronica water, with warm tea, and have applied warm fomentations to the præcordia and feet.

13. Bloody urine and stools, an hæmorrhage from the nose, and bloody serum oozing from the pustules, indicate a great acrimony and dissolution of the blood and humours, and generally prove fatal symptoms. Acidulous and cooling medicines, and such as obtund acrimony, as butter-milk and whey, are then of greater service than the most elaborate preparations.

14. In dry hot summers, the small pox are chiefly of the inflammatory kind, and apt to be attended with a looseness, which must by no means be stopped: all warm medicines and a hot regimen, and also coolers and external cold, are to be avoided. Nor is a looseness hurtful where petechiæ are complicated with the pox, but rather salutary, by carrying off the malignant humours.

15. As

15. As the distinct small pox rarely prove mortal, unless from mismanagement, but the confluent frequently; and as scarce one person in an hundred escapes the disease, it is advisable, in order to prevent this dangerous kind at the time that malignant small pox are epidemic, to observe a strict regimen, and to purify the juices by proper evacuants and alterants. For the same purpose, likewise, inoculation is to be commended, which has been lately introduced into Europe from the eastern countries, and is now commonly practised among us with success. The variolous matter is to be taken from ripe and benign pustules, and the body previously prepared.

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16. With regard to blisters, which the English Physicians at present highly commend, I can affirm nothing for certain, having rarely made use of them, unless where young persons had fallen into a great sleepiness or dulness, and in redness and defluxions of the eyes after the disease.

17. To preserve the face from being pitted, SYLVIVS and others, direct the feet, in the first days, to be frequently bathed in warm water; by which a revulsion is supposed to be made of the variolous matter to the lower parts. I have

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never tried this method, but think it promises better than anointing the pustules on the face with unctuous substances, which some recommend; for by these the pores are obstructed, excretion prohibited, the pustules rendered deeper, and consequently the pits more conspicuous. The most eligible method is, besides the internal medicines already mentioned for purifying the blood, to apply externally, before the pustules are entirely dried up, a liniment composed of axungia, spermaceti, white wax, a little balsam of copaiba, and camphor. The distilled waters of bean flowers, roses, and of the roots of Solomon's seal, with one-third of the aqua sclopetaria, contribute likewise to smooth the skin, and remove redness.

18. Sometimes, after the pustules have dried up, a number of fresh ones, smaller than the first, succeed. These are by no means to be neglected; for, if from cold or irregularities they return inwards, they may unexpectedly prove fatal. A moderate and equable perspiration is to be kept up, that they may ripen and dry like the others.

19. The convalescents, in order to the prevention of other diseases, are to be purged several times with balsamic and antiseptic laxatives, as
rhubarb

rhubarb and the pil. Rufi dissolved in some distilled water, as that of mint. They must avoid going too soon into the open air, especially if cool or moist; and rather endeavour to keep up a constant freedom of perspiration, by drinking warm liquors in the morning, and taking some gentle diaphoretic powder every second night. Unwholesome foods, malt liquors, all cold drinks, must be abstained from, and proper stomachics made use of at meals.

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§ 4. *Histories of Cases.*

1. The epidemic small pox of 1698 were in many respects peculiar.—The summer was uncommonly moist and cold, with frequent north winds: the autumn came on with immoderate rains, and sometimes snow; and continued wet, dull, cloudy, and moderately cold: the winter was extremely variable and unpleasant, without any sharp or continuing frost. Next spring, the neighbourhood of Hall was overflowed with water, which stagnating, sensibly affected the air, and completed the disposition to epidemic diseases. The small pox began in September, and raged with great violence; attacking, in this city, near two thousand persons; and scarcely sparing man, woman, or child, who had not suffered the disease before.

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The eruption was almost universally preceded by a pain of the back and head, lassitude, preternatural heat with shivering at times, a frequent pulse, loss of appetite, and restless sleep. In some children, rarely in adults, the disorder came on with excessive vomitings, which continued for some days: those who did not vomit, had perpetual retchings, nausea, and anxieties of the præcordia. In several adults, and some children, a looseness happened at the beginning, and stopped about the time of the eruption: in others, the belly was at first bound, and some loose stools succeeded about the third or fourth day with advantage. Many had a frequent inclination to urine; in a few, the urine was suppressed for some days, without injury. Infants at the breast, amidst continual moanings, frights in the sleep, costiveness or looseness, and heat of the body, were seized about the end of the third day with slight epileptic fits. In serous habits, sleepiness, itching of the skin, a burning and itching pain of the eye-lids, with sneezing, and a discharge of tears, were frequent. Many complained of a sense of pricking in the back and breast. In children oftentimes, about the third day, some blood dropped from the nose; and frequently a great number of ascarides worms were voided on the first days, sometimes with, and sometimes without, danger. Adults were remarkably

remarkably impatient, and at times delirious; which symptoms, a little blood falling from the nostrils increased, but a large hæmorrhage relieved.

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Such generally were the symptoms which preceded the favourable kind. The marks of malignity were, in children, intense crying, total want of rest, tremors, alternate cold and heat of the extremities, and unusual languors; in adults, a violent pain of the limbs and loins, imitating the nephritis or sciatica, great anxieties of the præcordia, a delirium and diarrhœa, exquisite pungent pain in the breast or hypochondres, tremors, shiverings, an incurvation and contraction of the limbs. A great depression of strength from the beginning, a vertigo, continual watchfulness, fainting in an erect posture, large discharges of urine, saliva, and mucus from the nose, discovered the malignant nature of the disease, though no considerable pain, or heat, or anxiety, or thirst, were complained of.

The eruption began, in the benign sort, between the third and fourth day. The preceding night was generally very restless, with anxieties, tremors, delirium, sometimes epileptic fits, and sometimes two or three loose stools. Red spots appeared, of various sizes, sometimes small and gradually increasing, sometimes broad, and after-

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wards running together into distinct pustules. They broke out first on the upper parts, then most copiously on the hands and feet; afterwards on the legs, breast, and back, more sparingly; and most sparingly on the belly. At the same time with the face, they seized the fauces, larynx, lips, and tongue; occasioning great pain, heat, itching, and tension of the parts. In the tunics of the eyes, I saw none; but the eye-lids, both externally and internally, were covered: whence the eyes became violently painful, itching, and hot; and on the sixth day closed, and continued so to the end of the suppuration. In the mean time, the eruption went on well; and was completed, where the pox were few, on the fifth, where more numerous, on the sixth day. The symptoms now abated: the pulse, before extremely quick, became regular, and almost natural; the sleep was calm; and the delirium and anxiety went off.

The disorder was of an unfavourable kind, when the eruption begun on the second or beginning of the third day; when pimples or miliarial pustules appeared among the variolous; when on the seventh or eighth day a second crop broke out; when the pustules were not red, but livid, pale, or brown, when sessile, when dry and parched, with a pit in the middle; and still
more

more dangerous, when no abatement of the symptoms followed the eruption. A copious flux of serum, whether by sweat or urine, or in adults by stool, or by salivation, beginning with the disease, and continuing during the eruption and suppuration, was generally fatal. Bloody urine, a frequent symptom of malignant small pox, was not observed; but, in a boy who died on the fifth day, there was a discharge of blood from one of the eyes, which had swelled greatly from the first. Where the disease proved fatal, the patient generally died on the fifth, sixth or seventh day; either of a delirium with convulsions, or sleepiness and convulsions, or a tetanus, after a remarkable shivering, on which almost all the pustules had disappeared.

Various
Fever.

The suppuration began in the benign sort, on the sixth day, proceeding gradually as the eruption had done, from the upper parts to the lower, and ending generally about the ninth, where the pox were very numerous on the eleventh, though sometimes not till the seventeenth day. The pustules now became gradually elevated, soft, round, white, with red bases, and filled with laudable yellowish white pus, the skin between them was tense, the face and hands, rarely the feet, swelled, the face so much that the eyes were closed. A heat, redness, pain and tension,

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tenſion, particularly of the face and hands, ſucceeded : theſe kindled a ſecondary fever, with reſtleſſneſs and anxiety, and ſometimes a tremor of the extremities, which however was no dangerous ſymptom. A frequent ſalivation in adults, and in children a diarrhœa ſometimes truly purulent, often acceded, without danger. At the height of the ſuppuration, particularly where the belly had been bound for ſome days, aphthæ broke out, with an inflammatory heat and pain of the fauces, and a deſluxion of viſcid humours, which generally yielded to external remedies.

The dangerous ſymptoms were, the puſtules not riſing or filling with matter, but remaining depreſſed, or empty like pea-ſkins, or appearing livid, or aſh-coloured, or greeniſh, with a blackiſh pit in the middle ; which laſt however did not prove fatal where other appearances were favourable, and the diſcoloured puſtules were not ſeated deep ; the face ſwelling, but little or not at all, or the tumour ſuddenly ſubſiding ; the ſaliva viſcid, and difficultly expectorated ; a great oppreſſion at the breaſt, from a ſtoppage of the expectoration, about the tenth or eleventh day ; a copious ſalivation continuing from the beginning to this period ; a diarrhœa or bloody vomiting. But the greateſt hazard was from a violent

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violent inflammation, with intense dry pain, tension of the skin, restlessness and anxiety, which, when shiverings intervened, and the patient complained of internal heat and thirst, and a coldness of the external parts, were generally mortal, exciting a high fever, delirium, constant watchfulness, and extreme restlessness, followed by considerable shiverings, on which the pustules turned white, and convulsions came on, which ended in death. This happened chiefly in adults, on the ninth, eleventh, and fourteenth days. Children generally died of suffocation, doubtless from the pustules being numerous in the fauces, and from the acrimony of the variolous humour, irritating the pneumonic nerves into fatal spasms. In two children, one three years old, the other eight, blood dropt from the pustules after suppuration: the first escaped, the latter died on the sixteenth day, the skin of both the hands having appeared on the fifth, and of the legs on the ninth, of a dark blackish brown colour, a plain mark of a stagnation of the blood, and tendency to a gangrene.

In those who survived the suppuration; if the disease was mild on the ninth day; if the pox were more numerous on the eleventh; if extremely numerous on the fourteenth, the swelling subsided, the heat abated, the pulse became
more

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more calm, and the pustules discharged a laudable matter, those on the face first, next on the hands, and lastly those on the feet. Those on the back and breast remained always softer and less full of pus, nor did they acquire any thick crusts. The pustules at length grew wrinkled, depressed in the middle, dried up, and fell off, leaving a heat and itching behind.

After the exsiccation, small abscesses sometimes broke out all over the body, with considerable pain and febrile heat. Others had, for some time, a weakness or contraction of the hands and feet, which in many readily yielded to the early use of baths and spiritous liniments, but in some cacochymic persons, and those who neglected timely assistance, ended in ulcers about the epiphyses of the joints, of very difficult cure, and which, from improper management, often degenerated into malignant wasting fistulæ. In ferous and catarrhus habits, there succeeded large hard tumours of the glands, particularly of the neck, which yielded without difficulty to emollient and discutient plasters. Young people had frequently an epiphora or continual flux of tears, with pain and redness of the eyes, and inability of bearing light; which, if not speedily relieved, occasioned a turbidness of the eye, and small films in the cornea, in some measure impairing

pairing the sight. Gross indigestible aliment, eating too freely of animal food, going abroad too soon, occasioned fresh anxieties, vomiting and diarrhœas, with great weakness, though little danger.

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To attempt preventing the disease by the antivariolous acid spirits or other medicines, was always fruitless, and sometimes seemed to make the small pox that succeeded of a worse kind than could otherwise have been expected: the only antidote was a removal from the scene of infection. But though we never could, in any instance, prevent the small pox by medicine, we were able, with some degree of certainty, to render them mild, by temperance, proper diet, abstinence from spiritous liquors, tranquillity of mind, and still more so, by the use of absorbent nitrous powders, and gentle laxatives; which last were sometimes given with advantage even after the first symptoms had appeared. With regard to emetics, there were generally symptoms which contraindicated them; though, on other occasions, they are often serviceable, especially when joined with alexipharmics.

The sick were kept out of bed as long as their strength would permit, or at most suffered only to lye on leather mattresses, which did not
keep

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keep them hot. All volatiles and warm medicines, and the so called alexipharmics and bezoardics, were abstained from, particularly in young, florid, sanguine and plethoric persons. Well dulcified spirit of nitre, and absorbent nitrous powders, were of much use: to the spirit was joined an equal quantity of the syrup of wild poppies, and some drops of the mixtura simplex: to every dose of the powder, where any symptoms of malignity appeared, a small portion of camphor, or half a grain of theriaca cœlestis was added.

On the approach of the eruption, were given emulsions made in weak simple waters, with julep of roses. The sick were at this time carefully defended from cold, or rather kept somewhat hot, due regard being had to their age and temperament, and the circumstances of the disease. Experience shewed, that from want of sufficient external heat, particularly in children and phlegmatic persons, the eruption did not succeed freely, and the pustules which had already appeared, were apt to subside. Where medicines were necessary to assist the eruption, a saturated tincture of scordium, or volatile aromatic spirits mixed with the anodyne liquor, succeeded best, especially where the disease was of a malignant kind.

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In the time of suppuration, if nature was sluggish, and the pustules remained depressed, a few grains of myrrh, with a little saffron and bezoardic powder, were the remedy. But these medicines had place only in the beginning of this stage; for after the inflammatory fever had come on, they increased it; nor were they ever given where the suppuration would proceed without such assistance. When heat and thirst were urgent, we gave only the emulsions above mentioned, substituting syrup of poppies for the rose-julep.

The pustules in the hands and face beginning to dry up, and the fever abating, absorbent powders, with myrrh and saffron, did good service. The common drink here, and through the whole course of the disease, was a decoction of hartshorn-shavings, scorzonera, barley, fennel-seed, and figs; tea, and infusions of warm herbs, were found less proper, at least during the eruption and suppuration.

Hæmorrhages from the nose required great caution. If checked at the beginning, a phrenetis, vertigo, and other terrible symptoms supervened: if suffered to continue too long, the strength failed, so as to be unable to expel the variolous matter. The best method was, to
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keep the feet warm, to give internally diascordium and nitre; and if the hæmorrhage was profuse, to snuff up the nostrils, and apply to the neck and temples, vinegar of roses with camphor.

A delirium happening at the time of eruption, and continuing after the pustules had come out, was relieved by camphorated spirit of wine, snuffed up the nose, and applied warm to the forehead and temples.

In anxieties of the præcordia, tremors, restlessness, frights in the sleep, convulsions, shiverings, and subsiding of the pustules, a mixture of one dram of tincture of castor, inspissated a little, three grains of camphor, and one grain of extract of saffron, gave immediate relief.

It was dangerous to stop diarrhœas; but when they were violent, and occasioned great weakness, we ventured on cascarilla; nor was nitre in these cases without use.

Pain and heat of the fauces, larynx and œsophagus, were alleviated by a decoction of elder flowers, liquorice and figs; and by warm milk, boiled with figs and saffron. Aphthæ were touched with mucilage of quince-seeds, which
likewise

likewise abated pains of the lips. The same mucilage, extracted with elder-flower and rose-water, with the addition of a little saffron and camphor, was the best remedy in itching heat, and redness of the eyes, and for opening them when closed. In stoppages of the nostrils, oil of almonds or linseed was used.

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The hard crusts of the pustules were softened, and the skin underneath, which had been eroded by the acrimonious humour, consolidated by a liniment, composed of tincture of tartar, essence of myrrh, oil of almonds, and camphor. Ulcers were treated with camphorated ointment of ceruss.

Bleeding did not contribute either to the prevention or cure. Opiates increased the anxieties where the pustules were numerous; and given before the suppuration, occasioned dangerous sleepiness, with tremors and succussions of the limbs.

The above method was pursued in upwards of 150 patients, of whom scarce one in twenty died. In thirty years practice since, scarce any other medicines have been required or appeared salutary or proper.

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2. In a young gentleman, of extreme sensibility, an active disposition, and thin habit, the small pox proved regular and mild. On the sixth day, the pustules tending to suppuration, he complained of excessive anxieties of the præcordia, and pain of the belly, became restless, could get no sleep, and had an ineffectual stimulus to stool every half hour: these symptoms continued upwards of twenty-four hours, but the heat or pulse were not increased. He had no stool from the beginning of the illness, nor for three days before. Oily glysters, with a draught of manna, cream of tartar and oil of almonds, loosened the belly, and brought away an incredible quantity of indurated scybala; on which the complaints abated, and the disease proceeded regularly and mildly.

The Physician must be careful in all diseases to unload the intestines, more particularly in the small pox and measles, in which the belly is usually bound in the first days, and in which a retention of the feces may occasion a variety of threatening symptoms.

3. Three children of an hysterical woman, who had lived irregularly, but always enjoyed good health during pregnancy, were seized with the small pox, at a time when a favourable kind

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was epidemic. In one boy, aged five, the eruption, with a fever and the usual symptoms, lasted eight days, and the suppuration likewise was protracted beyond the usual period. In the other, four years old, the pustules came out on the second day, intermingled with rough military spots; the heat and pulse continued preternatural through the whole course of the disease; the pustules remained sessile and did not suppurate, and many of them had black specks. In the girl, of seven years, the fauces and throat were so full of pustules, that she could swallow nothing, and scarcely breathe. Nevertheless, by gentle remedies and time, they all got through the disease; but having afterwards too freely indulged returning appetite, and exposed themselves to cold windy weather, pains and tumours of the joints, and a slow fever supervened: malignant spreading ulcers followed, the bones became black and corrupted; a tabes and extreme depression of strength came on, under which both the boys sunk in the beginning of the third month.—The girl, whose ulcers were less malignant, was cured in some months, by using for common drink emulsions made in barley-water sweetened with sugar, taking small repeated doses of bezoardic powder, with the addition sometimes of a few grains of medicinal regulus of antimony, sometimes of nitre, and occasionally

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a laxative of solutive fyryp of roses, with extract of rhubarb, and mercurius dulcis: to the indolent hard tumours of the feet, was applied a mercurial plaster, and into the putrid ulcers was injected the balsamum vulnerarium, whose principal ingredient is the antimoniated balsam of sulphur, made with oil of turpentine, which, mixed with tinctures of myrrh and amber, and balsam of Peru, had remarkable good effects in a gaping ulcer with four holes.

If valetudinarian women have few complaints in pregnancy, the children are usually infirm, and suffer greatly from diseases, particularly the small pox and measles. The small pox, naturally mild, in persons of an ill habit prove malignant; and when any symptoms of malignity have discovered themselves, we are never to think the danger past, though the pustules have dried up and fallen off; for without proper laxatives and alterants at this period, the taint which they leave in the mass of humours, occasions, on irregularities in the non-naturals, stubborn and often fatal diseases; in the internal parts, abscesses, particularly in the mesentery and lungs, with a hectic fever; in the external parts, foul, malignant, spreading, cancerous ulcers. Malignant ulcers, where there was no fever, have happily yielded to mercurial unctions and mercurial laxatives.

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4. A young gentleman, after the cure of humid pustulous eruptions, by diet-drinks, and sulphureous liniments, had the measles, and escaped. A fortnight after, numerous whitlows broke out all over the body, some attended with considerable inflammation, and terminating in deep abscesses, of difficult cure, but which yielded at length to diet-drinks, laxatives, mercurials, and gentle diaphoretics. The small pox followed, and proved of a very unfavourable confluent kind: though there was a fever from the beginning, the pustules scarce appeared on the seventh day; nor did they suppurate regularly, but rather remained depressed; nor did the frequency of the pulse go off after the eruption was completed. By the use of a solution of myrrh and saffron in a weak alkaline lixivium, the suppuration was very sensibly promoted, and the disease brought to a happy issue. It was observable, that even during the time that the suppuration was going on successfully, he had loose stools, to the number of seven a-day; and that the febrile heat, which usually increases at this period, was by these discharges kept under.

5. Two girls who were twins, four years old; one large, full, of a torpid disposition; the other smaller, thinner, and more active; were seized at the same time with the confluent small

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pox. In the corpulent girl, the pustules did not appear till the seventh day, and refused to suppurate, those on the face and hands became bloody, and on being opened, discharged a bloody serum; the patient in the mean time extremely weakened by anxieties, fever, continual thirst, and want of sleep, sunk on the eleventh day. In the slender girl, all the symptoms were milder; the pustules came out on the third day, dried up on the eleventh, and afterwards falling off, left her healthful.

6. A young gentleman, full of blood and juices, of a family to which the small pox had been extremely fatal; in autumn, after irregularities, was seized with this distemper, then epidemic. A considerable shivering was followed by a violent anxious heat, and very restless night: next day he complained of an exquisite pain of the head and back, became impatient, fretful and delirious. A glyster, antiphlogistic, acidulous, nitrous, and absorbent medicines, abated the delirium and heat; and, on the fourth day, small pimples like pin-heads broke out on the face, accompanied with rough, white and red miliary eruptions: next day, the pustules covered the hands and breast so close, that scarce any interstices could be distinguished betwixt them. The symptoms now abated, but the pulse still continued

nued frequent, the pustules suppurated difficultly, the face swelled extremely, and, on the seventh day, the heat, pain, and tension of the hands became intolerable. He had a constant desire of changing his bed and situation, and handling cold substances, could get no sleep, had an anxious and laborious breathing, and a load at breast which threatened suffocation. Glysters, emulsions, bezoardic, and antiphlogistic powders, were used in vain: a coldness of the extremities came on, followed by convulsions, which soon terminated in death.

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7. A child at the breast, one year old, was attacked with convulsions every quarter of an hour, for 24 hours, when the teeth began to appear, and next day the small pox, first on the hands and breast, and afterwards on the face. Little or nothing was given to the child: the nurse took bezoardic nitrous powders, pectoral elixir with saffron, and a tincture of myrrh and saffron made in alkalized liquor. Both the teething and small pox succeeded well.

The lateness of the eruption on the face, was doubtless owing to the spasms and strictures excited there by the dentition. Wherever children at the breast are seized with the small pox,

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we are to prescribe chiefly for the nurse such medicines as may tend to correct acrimony and sweeten the chyle.

8. A young gentleman had the small pox, not confluent or numerous, nor attended with a high fever or any violent symptom : but after the eruption was completed, the pulse continued quick and weak ; the patient had a constant inclination to sleep, and was always more languid after sleeping ; the pustules were filled with a pellucid humour, appeared flat in the middle, and some of them had black specks. On the ninth day, having sat up in a warm room, well covered, about a quarter of an hour, a sudden fainting came on, the pustules sunk, the feet grew cold, and the breast oppressed : convulsions followed, and in a few hours he expired.

This disease had strong characters of malignity ; a weak pulse, sleepiness, loss of strength, pellucid pustules flat and blackish in the middle. In these circumstances, sitting upright for any considerable time is extremely dangerous.

9. A young lady of fourteen, at a time when the small pox were epidemic, complained of great pain of the head and loins, thirst, lassitude, alternate chillness and heat of the skin. A mixture

ture of spiritus nitri dulcis and bezoardic tincture, each three drams, syrup of wild poppies, two drams, being given every hour in doses of forty drops, a vomiting came on, with great restlessness, anxiety, and depression of the strength. A draught containing ten drops of spirit of sal ammoniac, and three grains of saffron, being repeated twice, and the patient close covered up, in a hot room, a sweat ensued, the vomiting went off, and, between the second and third day, pustules came out, with a most intense heat. On removing some of the bed-clothes, a shivering came on, the pustules instantly disappeared, and extreme restlessness, anxiety, and retchings, succeeded. External warmth brought the eruptions out again, but not permanently; the appearance and disappearance, with their respective symptoms, succeeding one another alternately twice or thrice a-day. As the girl was costive, and had before the illness eat immoderately of sweet fruits, salads, &c. a laxative emetic potion was exhibited, which procured copious evacuations; and after its operation, the essentia theriacalis, with an aromatic water. All the symptoms remitted; a moderate equable heat was diffused over the whole body; the pustules came out extremely numerous, and as it were impetuously, on the face, hands, breast, and feet; the suppuration advanced regularly, and

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and without one unfavourable symptom, except great pain from the numerous pustules under the thick skin of the soles, which, however, was alleviated by the application of camphorated spirit of wine with oil of almonds : in the exsiccation, all the skin of the soles peeled off.

Where the first passages are overloaded with crudities, the small pox are always attended with alarming symptoms. It is fruitless, and often prejudicial, to attempt promoting the eruption by internal expellents or external heat ; for though the small pox should by this means be brought out, they are never stable, but apt to return inwards again, with an exacerbation of all the complaints. To cleanse the first passages, is the primary indication ; an indication which nature herself points out, by the nausea and vomiting. But let not the unexperienced Physician be too hasty in imitating what was here practised with so good success : we must distinguish betwixt vomitings or retchings from a surcharge of corrupted humours, and from a vellication of the nervous coats by a subtle, acrimonious, caustic matter : emetics are as dangerous in the one case, as they are salutary in the other.

10. A boy, four years old, was attacked by the small pox, with the usual symptoms. A hot room,

room, a hot bed, a vessel of hot water placed at his feet, spirit of hartshorn and tincture of castor given internally, brought on convulsions on the second day, with an anxious and suffocatory respiration, frightful sleep, and extreme inquietude. I opened the windows, took off some of the bed-clothes, and instead of spirit of hartshorn, gave spiritus nitri dulcis, with syrup of wild poppies, nitre, and cinnabar: the symptoms presently abated, and the eruption and suppuration went on regularly.

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11. In a girl of fifteen, a tertian of long continuance was succeeded by the small pox; which, after their exsiccation, left a violently painful red spot on the lower lip. On applying a cataplasm of whites of eggs and bole armeniac, it became black and without sensation. Fomentations of bitter herbs, oak-leaves, vinegar and vitriol, were used, without effect: the corruption increased, the lips and gums were consumed, and the teeth grew black. A variety of antiseptics were employed both internally and externally, with as little success; the strength gradually wasted, till in a few weeks death ended her miseries.

CHAPTER VIII.

Of the MORBILLOUS FEVER, or MEASLES.§ 1. *General History.*

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THE morbillous fever, or measles, is a catarrhal fever, in which red spots on the skin, just exceeding the surface, are produced by a peculiar contagion of an acrid, caustic, and inflammatory nature.

The measles have a considerable affinity with the small pox; both being exanthematous fevers, contagious and epidemic, attacking almost every person once, and no one twice, and proving more or less dangerous, according to the habit of the sick, and the constitution of the season.

The differences are, that the measles are constantly attended with a violent cough, which in children sometimes lasts a fortnight before the fever comes on; and are preceded for the most part by a running of the nose and eyes, with sneezing and swelling of the eye-lids: that hæmorrhages likewise from the nostrils, and in women from the

the uterus; and vomiting of blood, are more frequent: that the disease is milder, and of shorter duration, the eruptions coming out often on the first day, though more frequently after the third, and frequently going off on the fifth or sixth, on an increase of perspiration, without rising into pustules, or suppurating, or occasioning any pain or heat. The spots are in some persons large, in others smaller, in some like flea-bites; sometimes of a florid red or purple colour, sometimes paler and inclining to a leaden hue. They never leave pits, but commonly an itching, and branny scales, which by degrees fall off.

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The measles, of themselves, have little danger. But from an unwholesome constitution of the air or other causes, they are sometimes accompanied with symptoms of malignity, a great depression of strength, coldness of the extremities, excessive restlessness, vomiting, difficulty of deglutition, and disorder of the senses. Petechial spots, miliary eruptions, or scorbutic pustules, attending or succeeding them, are likewise dangerous; as is, for the most part, a continual cough, with a looseness, and great restlessness. Profuse sweats, especially in persons of an advanced age and irregular life, are an unfavourable symptom; the spots being apt to disappear from
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slight cold, and then generally proving fatal. If, after the disease, a short cough and hoarseness remain, unless speedy assistance is procured, a consumption and hectic fever succeed.

Those who die of the measles, especially children, are generally suffocated, about the ninth day, from too copious a flux of serum to the lungs. In some, the disease is followed by a looseness, which lasts for some weeks, and brings on a mortal tabes; in others, particularly the common people, they are succeeded by a lingering fever, atrophy, and swelling of the belly, which terminate in death: on dissection, the mesenteric glands are commonly found large, and the lungs covered with latent vomicae.

§. 2 *General Method of Cure, with Practical Cautions and Observations.*

1. The measles in general are to be treated in the same manner as the small pox, by diluents and obtunders of acrimony, a temperate external warmth, and the more fixed diaphoretics, to promote the expulsion of the morbid matter.

2. In children exposed to the disease, the intestines should be previously cleansed from worms, by the pil. Ruffi with mercurius dulcis
and

and worm-feed, otherwise it will be difficultly overcome: if it be suspected that the first passages abound with crude juices, a gentle emetic, as half a grain of emetic tartar, is to be given on the first attack. Adults, if plethoric, are to be blooded: this not only prevents dangerous hæmorrhages, but likewise instantly abates the anxiety and restlessness, and occasions a plentiful eruption all over the body.

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3. Too warm medicines or regimen render the humours more acrimonious, increase the heat and anxiety, and exhaust the strength. Coolers likewise do harm, by retarding the excretion of the morbid matter, and thus occasioning a disposition to a gangrene.

4. In women subject to hysteric spasms, or near the menstrual period, the measles are often joined with faintings, difficulty of breathing, constriction of the throat, and great anxiety of the præcordia, which prevent the eruption. In these cases, we are not to force the eruption by warm expellents; but to alleviate the spasms, by paregoric and carminative glysters, small doses of nitre, and castor, and sometimes venesection.

5. A violent cough is the most troublesome symptom in this disease. Nothing is more effectual

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fectual for abating it, than fresh drawn oil of almonds mixed with the pectoral syrup, and given frequently, to the quantity of half a spoonful at a time, in water-gruel. It is likewise of service, to mix with the absorbent and diaphoretic powders, about half a grain of extract of saffron; and to drink, as tea, an infusion of veronica, liquorice, wild poppies, and fennel-seeds.

6. A diarrhœa is often salutary, and therefore not to be rashly checked: the safest remedies are glysters of more soft liquors, for washing out the acrimonious matter from the intestines. If it continues obstinate after the disease has gone off, some grains of cascarilla, or a little theriaca cœlestis, may be joined to the bezoardic powders.

7. Excessive hæmorrhages, which are always dangerous, and for the most part signs of malignity, are to be treated with great circumspection. The more powerful astringents and opiates have no place: a little electuary of scordium has been given with good success, in draughts of alexiterial waters with some drops of spirit of vitriol; and the mineral anodyne liquor with small quantities of nitre. Amulets do rather harm than good; for they can operate no otherwise than by making a strong impression upon the mind,

mind, which in these dangerous disorders ought to be most studiously avoided.

8. In malignant cases, the milder antimonials have been of service, by promoting sweat and the eruption, and by loosening the belly.

9. In profuse sweatings, if the linen or bed are to be changed, the fresh ones must be thoroughly dried and warmed; from cold received at this time, the eruptions are repelled, and I have seen death ensue in a few hours.

10. Premature exposure to the air, and irregularities, after the disease, frequently give rise to more dangerous distempers, asthmas, suffocative catarrhs, and consumptions. The convalescents should drink, for some weeks, warm infusions of gently diaphoretic herbs, take occasionally a balsamic laxative, and abstain from gross foods and malt liquors.

§ 3. *Histories of Cases.*

1. A girl of twelve, complained of lassitude, want of appetite, weakness, and pricking pains in the legs and arms, the face livid and leaden-coloured. About a week after, a shivering fit was followed by heat, and a violent pain of the

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head and loins, and on the third day, by morbillous spots, and a most troublesome cough: she could get no sleep, nor could she bear the light. On the fifth day, the eruptions gradually went off, and the disease seemed on the decline: but the pain of the head and eyes remained; the belly continued bound, as from the beginning, no stool being procured but by a glyster; a fresh anxiety, heat, thirst, prostration of the strength, and difficulty of breathing, with red and white miliary eruptions, succeeded. Obtunders of acrimony, antispasmodics, and mild diaphoretics were exhibited: the girl recovered, and the pain of the head by degrees abated, but the sight was impaired, and grew more and more so, till in a month she became absolutely blind, though the eye was entire, and the pupil only about twice the natural width. Medicines were used in vain, till in her fourteenth year, when the menses appearing, the eyes regained a degree of brightness; when mild balsamics for promoting that evacuation, a blister kept running for some time, fresh vipers fat applied several times a-day, and some drops of the balsamum vitæ, taken occasionally at meals, so far restored the sight that she could distinguish objects in certain situations of the eye.

It is always a threatening symptom in the measles and small pox, when the patient is ailing long before the eruption, and complains of fixed pains at particular parts; or if a violent pain of the head and eyes, which usually goes off when the eruption happens, continues through the course of the disease; it leaves for the most part some disorder of the head, as in the present case a gutta serena, almost always irremediable.

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2. A young gentleman, of a choleric and dry constitution, and somewhat irregular life; after a violent fit of passion, complained of heat, weakness of the limbs, pain of the back, with a most troublesome tearing cough, anxiety and cardialgia. On the third day, morbillous spots broke out so numerous that in twenty-four hours the whole body was covered. He grew extremely restless and impatient, and could not bear even the temperate warmth of the bed: from cold the spots disappeared, the anxieties and restlessness increased, with an intense thirst; in a day and night, he drank at least a gallon of emulsion and ptisan. A gentle diaphoretic was given for throwing out the eruptions again, but the patient's tossing prevented that effect; the thirst became almost unquenchable, and near two gallons were drunk. He was thence

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seized with a diarrhœa, the urine likewise was copious. He complained still of internal burning heat, thirst and anxiety, and continued to drink most plentifully, but refused warm liquors and medicines. The flux continued five days; the spots never re-appeared; the symptoms nevertheless abated, and in fourteen days he unexpectedly recovered.

3. A child ten years old, had such a laxity of the belly left by the measles, that every thing taken was quickly voided by stool. He complained likewise of gripes and a pain of the feet, which were always cold. The looseness being restrained by opiates and astringents, a violent pain settled in one leg: a tumour arose, which, when suppurated and opened, discharged a quantity of blood and ichor. A spreading ulcer succeeded, and consumed almost the whole foot; with a fever, a cough and difficulty of breathing, by which the child was suffocated.

In children, a looseness both during and after the measles and small pox, is often free from danger, and never to be hastily suppressed. The only medicines I have found serviceable in these cases are, absorbents with diaphoretics, antimony, and a small portion of cascarilla, broths and
jellies,

jellies, with oil of almonds, and emollient glysters. Morbillous
Fever.

4. A child at the breast, one year old, fell into a preternatural heat, with frights in the sleep and vomiting. Next day the measles broke out, numerous, rough, and as it were constringing the skin. On the fourth day, a great difficulty of breathing, and oppression at the breast came on, with anxiety, restlessness, watchfulness and startings. One-sixth part of a grain of emetic tartar procured four stools of a deep green gluy matter, on which the strength was raised, the breathing became freer, and the spots redder. Some jelly of hartshorn given in weak barley-water, abated the heat; and the child happily escaped.

The threatening symptoms which happened here at the period in which the disorder usually abates, proceeded not from the measles, but from crudities in the first passages. In such cases, evacuants, even at the time of the crisis, are not only safe but salutary.

5. A boy of eleven, of a hot temperament and active disposition, full of blood, and of a ruddy countenance, was seized with intense heat, and pain of the head and back, which next day were

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relieved a little by nitrous powders. On the third day, the burning heat returned, and on the fourth some blood dropped from the nose: on the sixth, he bled plentifully. From the seventh to the tenth, the symptoms were milder, and the measles broke out; but on the eleventh, the hæmorrhage returned, and the spots disappeared. On the twelfth, the bleeding was still more profuse, so as extremely to exhaust the strength; and the internal heat increased. Next day he was again better; but by a return of the hæmorrhage, on the fifteenth, he expired.

6. A gentleman of thirty-six, of a thin, fibrous habit, who for several years had indulged in the liberal use of wine, fell into the measles, with immoderate heat and restlessness, violent cough, and extreme anxieties of the præcordia continuing night and day, and profuse sweatings from the beginning. Thirty drops of a warm tincture were given every four hours, and strong-ale allowed for drink: the eruption nevertheless succeeded, the anxieties remitted, and the breathing became freer. On changing his wet shirt for a fresh one not sufficiently warmed, the spots, with which the body was covered, instantly and totally disappeared; and such restlessness, anxiety and depression ensued, that he seemed ready to expire. The bezoardic cinnabarine powder
with

with an analeptic water, the mineral anodyne liquor with tincture of antimony and some drops of volatile aromatic spirit, brought back both the sweat and the spots ; on which the symptoms abated, and the pulse, before quick, weak and unequal, became equal and full. On the seventh day, from changing bed, the spots disappeared again ; the extremities grew cold, the pulse contracted and small, the breathing laborious, with excessive anxieties, a shivering and convulsion of the limbs, which ended in death.

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7. Three sons of a nobleman ; one six, the other five, and the third three years old, were seized with the measles. A young practitioner, too fond of nitre, from the commendation of those he studied under, gave nothing but large doses of nitrous powders : the eruption was retarded, the breathing became difficult, the cough continual without expectoration, an intense asthma was joined, and in seven days all the three expired.

Nitre, although of excellent service in many cases, is never to be given liberally in exanthematous disorders, unattended with immoderate heat ; nor in catarrhal or malignant fevers, in which a corruption rather than an exestuation of the humours, is to be dreaded ; especially in

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children and persons of a moist habit. In children, when the morbillous spots have refused to come out, and the matter settling on the lungs has threatened a suffocatory catarrh, I have observed the greatest benefit from a blister.

8. A nobleman of twenty, of a sanguineo-choleric temperament, who had never been blooded, subject to hypochondriacal disorders, with an inflation of the stomach and frequent vomitings after meals; at a time when the measles were epidemic, complained of anxiety of the præcordia, pain of the head, back and feet, internal heat, with shivering at times, and a dryness of the skin. On the third day, some small red specks appeared on the forehead: no more had come out on the fourth; the symptoms continuing, with a full and quick pulse. A vein being opened in the foot, the anxiety and violent headach abated: the specks on the forehead seemed at first to disappear, the pulse was quick and hard, and the heat and a sense of pricking in the skin prevented sleep: next morning, the spots came out thick, pale at first, but by degrees growing redder. The pain, oppression, cough, and internal heat went off, and the patient complained only of an uneasy itching, burning, and tension of the skin; and a pain and wateryness of the eyes. On the ninth day, a plentiful

plentiful sweat broke out, which continued next day, of a fetid four smell. On the eleventh, he had six loose stools without gripes; the spots gradually lost their redness, and on the thirteenth disappeared, leaving the patient in good health.

Morbillous
Fever.

CHAP.

CHAPTER IX.

Of the MILIARY FEVER.§ 1. *General History of the Miliary Fever.*

Part I.

Chap. 9.

IN the miliary fever, numerous small pustules, like millet-seed, of a red or white colour, and of a peculiar ill smell; with a roughness and corrugation of the skin, appear on the surface of the body, and give relief to the patient.

Miliary eruptions are frequently symptomatic, or complicated with other disorders, particularly the small pox, measles, petechial and other continual epidemic fevers. Sometimes they accede in the decline, kindle a new fever, and carry off the patient, already weakened by the former disease: this happens chiefly to those who have lived irregularly, where the belly has been long bound during the first fever, or cooling medicines too liberally used. Sometimes they come on at the beginning, particularly in the small pox and measles, and are in this case likewise dangerous. In children, they are sometimes

times joined to catarrhus fevers, and attended with a vomiting or purging; if the disease is on the decline, a swelling of the feet, and sometimes of the belly, ensues, till a sweat, either spontaneous or excited by art, proves a solution.

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The symptoms of the idiopathic miliary fever are generally these: a slight shivering is followed by a violent heat of the body, a great languor and depression of the strength to such a degree that the patient often faints, a stricture of the præcordia, oppression at the breast, deep sighs, restlessness, watchfulness, or at least laborious and interrupted sleep: a pungent heat is felt in the back, and alternations of heat, cold and shivering under the skin, particularly in the palms of the hands: in child-bed women, the lochia are retained, and the milk reabsorbed from the breasts. The surface then becomes rough and wrinkled like a goose-skin; and innumerable small pustules come out, white, red, or both together, about the size and shape of millet-seeds, first on the neck, and afterwards on the breast, back, arms and hands. On the appearance of these, the symptoms abate; the pulse, which was hard, contracted and quick, grows softer, freer and slower; the patient gains spirits; the skin becomes moist; and the belly,
before

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before so much bound that even flatulencies had no passage, is relaxed, so as sometimes to void the feces. By degrees the pustules become smooth, and full of a fetid ichor, the urine grows higher coloured, a sweat of an ill smell, peculiar to this disease, breaks out, the uterine flux returns, in about seven days or longer, the pustules dry up, and fall off in little scales with a remarkable itching of the extremities, and the patient gradually recovers strength.

Red miliary eruptions are frequently chronic, continuing for a considerable time without any fever, and often returning at certain seasons of the year. The white are more dangerous and acute, and very rarely unaccompanied with a fever, though the itching and heat of the skin are much less violent than in the others: they are almost always attended with a copious excretion of serum, by sweat, thin urine, sometimes spitting, and sometimes watery stools. Both sorts are of all the exanthemata the most subject to itching and pricking, and the most apt to return into the habit.

The miliary is less contagious than the other eruptive fevers; nor does it depend so much on the constitution of the air. It is rather endemic in particular places, than epidemic; and arises
more

more from an ill disposition of the viscera and juices, than of the seasons. Impure air however always aggravates, and sometimes renders it malignant; and at some times of the year, particularly March and April, it is more frequent than at others.

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Light, sweet, corruptible food, gross and unwholesome liquors, or the too sparing use of such as are wholesome; a costive habit, deficiency of perspiration, suppressions of customary evacuations of blood, or immoderate and weakening discharges, dispose to this disease. Persons of a lax habit, and of a sanguine or phlegmatic temperament, are more subject to it than others; children, more than adults; old people, than such as are in the flower of age; women more than men, and in child-bed more than at other times: the fever usually comes on about the third day after delivery, with oppressions at the breast, tremor of the heart, sighing, watchfulness, colliquative sweats of an ill smell, and sometimes cold sweats; white miliary exanthemata appear sometimes at the beginning of the fever, and sometimes not till the seventh or fourteenth day from delivery.

Though the causes of the miliary fever above assigned have always subsisted, the disease itself
has

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has made its appearance only of late years, since the introduction of tea and coffee: it is chiefly among the drinkers of these, that miliary fevers are frequent. All warm liquors drive the impure and acrimonious humours, which would otherwise be carried off by urine, to the cutaneous emunctories; where, stagnating from external cold, they produce eruptions, and by degrees alter the whole crasis of the blood.

Costiveness, a sedentary life, and neglect of suitable evacuations during pregnancy, render the miliary or milk-fever after delivery more violent. A preternatural hardness and quickness of the pulse remaining after a sufficient eruption, with restlessness, want of sleep, and difficulty of breathing, are unfavourable symptoms; as are likewise profuse sweats from the beginning, copious pale-coloured urine, a constant inclination to discharge urine, a sudden change of the urine from turbid and high-coloured to thin and pale, and a looseness with gripes, especially in child-bed women. The disease is dangerous, if the pustules appear and disappear, the symptoms continuing equally violent; and more so, if after returning into the habit, they refuse to come forth again, the oppression at the breast, prostration of the strength, sighing, anxiety and restlessness increasing, with a stricture of the fauces.

If,

If, whilst the morbid matter remains within the body, the internal parts burn, and the extremities are cold and stiff, or if the external parts are hot, and a sense of cold is perceived in the abdomen; the patient dies, generally in a fainting fit, from an inflammation and sphacelus of the viscera or brain.

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§ 2. *Prevention and Cure.*

As child-bed women are so subject to this dangerous disease, proper means should be used early for its prevention. During gestation, a strict regimen is to be observed, with moderate exercise, the belly kept from cold, some blood taken away from the arm three or four times, and the alvine evacuations occasionally promoted by manna, rhubarb, and the preparations of tartar. On the approach of labour, premature efforts, which weaken the strength, and forcing medicines, which exagitate the humours, must be avoided. After delivery, the uterus is to be cleansed, and the cacochymic indisposition of the juices removed: on the second day, the commotions being allayed, all the excretions are to be gently promoted, and strengthening balsamic pills given every other day, either by themselves, or, if the pulse still remains quick, along with nitre: at this time likewise may be exhibited, in
thin

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thin broths, medicines which abate spasms, dissolve grumous blood, and promote perspiration; as spermaceti, oil of almonds, infusions of chamomile-flowers, elder-flowers, and milfoil-tops, diaphoretic powders, mixtures of simple aromatic waters, with distilled vinegar and syrup of lemon-juice.

The cure of the miliary fever is to be effected by relaxing the solids, diluting the acrimonious matter, and promoting its expulsion through the pores of the skin. The two first intentions are answered by barley-water, whey, and such like liquors, to which may be added, for abating immoderate heat, a little lemon-juice or nitre: the last, by small doses of saffron and castor, or the mineral anodyne liquor with one-third its quantity of volatile aromatic spirit; this mixture is found singularly serviceable, wherever the eruption proceeds too slowly, or the pustules disappear.

§ 3. *Practical Cautions and Observations.*

1. The miliary fever, the most ticklish of all diseases, will bear no excess either in regimen or medicines. The patient must be kept in a moderate and equal warmth: too great heat exhausts the strength, occasions anxieties, and an itching

itching and burning of the skin: cold impedes the eruption, and brings on a languor, and lowness of spirits: an unequal regimen, if it does not retard, at least renders the pustules unstable. The changing of linen and bed-clothes should as much as possible be avoided.

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2. On the first breaking out of this disease among us, when it was treated with warm alexipharmics and a hot regimen, almost every one that was seized with it, died: by the temperate method now pursued, numbers escape. The liberal use even of common innocent liquors very warm, proves injurious, by raising copious sweats, which too much exhaust the serum. Nevertheless, in case of the retrocession of the pustules, warm liquors are of immediate service, and medicines likewise of a moderately warm nature have place.

3. Cooling medicines, and those which too much abate the intestine motion, impede the expulsion of the morbid matter, and thus dangerously increase the anxiety and languor. Even nitre is to be used with caution: in the red miliary eruptions, or a complication of the red and white, where there is great internal heat, with thirst, and a large full pulse, small doses of it are advantageously mixed with diaphoretics; but in

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the white, and wherever there are symptoms of malignity, or a chilness of the external parts with alternations of heat, it must entirely be abstained from.

4. For common drink may be used a decoction of farsaparilla, scorzonera, and cichory-roots, with hartshorn-shavings, barley, and a little fennel-seed. No disease bears the drinking of malt-liquors less than this.

5. The belly must neither be kept too loose, or too much bound: a long costiveness adds fuel to the disease, and prolongs it; and the most innocent laxatives given too soon, by occasioning a derivation of the morbid matter from the skin, bring on an oppression of the præcordia, gripes, burning heats in the belly, nausea, and subversions of the stomach. The belly must not be opened either a little before or a little after the eruption, nor till the disease is on the decline, and the pustules begin to dry; and even then, scarce any thing but an emollient glyster can be ventured on: this is to be injected in the time of the remission of the symptoms, which is generally greatest in the morning.

6. With regard to bleeding, the utmost circumspection is necessary. In the white miliary fever,

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fever, and wherever an extreme depression of the strength, with profuse sweats, and a weak quick pulse, discover the disease to be of the malignant kind, it has no place. On the other hand, in child-bed women, where a retention of the lochia, and the symptoms commonly attending this fever, prognosticate a miliary eruption, venesection at the beginning is eminently serviceable, immediately removing the extreme anxieties of the præcordia, faintings, laborious and difficult breathing, and promoting a salutary eruption all over the body.

7. As this disease is generally attended with great weakness and disposition to fainting, the patient must never come out of bed or sit long upright; for in this posture he is most apt to faint, and the pustules, not without danger to disappear.

8. HAMILTON, in his treatise *De Febre Miliari*, commends blisters in this disease, and with good reason, as they drain off a part of the impure ferous humours; and, by stimulating the nerves, enable them more readily to throw off the morbid matter. Where the eruption proceeds slowly, and the motion of the humours is determined towards the internal parts, blisters are applied to the legs with much advantage.

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Chap. 9.§ 4. *Histories of Cases.*

1. A young woman, chearful and active, of a sanguineo-choleric temperament, subject before marriage to hysteric disorders, and profuse sweatings in the arm-pits and feet; during pregnancy, became unusually sorrowful, and the sweats ceased; there was constantly a large secretion of milk in the breasts, from the middle of gestation; in the fifth month, a burning pain arose about the hypochondres, as if a coal had been applied to the part. After a laborious delivery, the whole body was seized with an intense febrile shivering, followed by pain of the head and restlessness. On the fifth day, the lochia stopt, anxieties of the præcordia succeeded, with alternate shiverings and heat, a burning heat in the belly, and at length a delirium. After the use of diaphoretics, and a temperately warm regimen, both red and white miliary eruptions appeared on the pit of the stomach, the neck, back and arms: from a violent fit of passion, the skin became parched and dry again, the delirium changed into rage, the milk, which after delivery had been extremely plentiful, was retained, rumblings arose in the belly, the breathing was intercepted, and she expired.

2. A woman of thirty, of a tender constitution and great sensibility, on the sudden death of her husband, gave way to immoderate grief, the menses stopt, she became restless, had no sleep or appetite. Soon after, she was seized with a shivering and heat, a tremulous agitation of the hands and neck, and a cynic spasm of the mouth, with anxiety and faintings at times. On the use of antispasmodics and antihysterics, these symptoms abated a little, but still returned now and then in a less degree, till on the third day, red and white miliary pustules broke out all over the body, the belly being bound for some days before and during the eruption. The spasms now remitted, but sleep was still wanting, and she had a constant inclination to urine, but a small discharge. From a sudden fright, the eruptions disappeared, extreme anxieties of the præcordia came on, the former complaints returned, and seemed to disorder the senses. Some blood being taken away, and the mineral anodyne liquor with volatile spirit, exhibited every three hours in a warm infusion, the pustules reappeared on the third day, but from cold and a glyster, greatest part were driven in again. The patient now became considerably disordered in mind, and burst into laughter or tears without any manifest cause, but the bodily complaints somewhat abated; she took food, slept a little,

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and by degrees was able to attend domestic affairs. After half a year, she used the caroline waters, by which the eruptions were thrown out all over the body, which falling off in scales on the seventh day, the senses and health were restored.

3. A strong young man, full of blood, was seized with chilness and shivering, followed by heat and great anxiety of the præcordia. A vein was opened on the second day; on the fourth and fifth, white miliary pustules came out thick over the whole body. The patient was kept in a warm room; he complained of an uneasy weight and spasmodic affection of the left side, had a stimulus to urine, but voided only a small quantity with difficulty; the belly was bound for six days. A decoction of oats and scorzonera-root, with poppy-seed and burnt hartshorn, being used for common drink, and an absorbent powder, with diaphoretic antimony, and cinnabar given four times a day; he grew easier, he passed urine with less difficulty, and the pustules came out more freely. On the ninth day, he bled a little at the nose, and had a spontaneous loose stool. The powders were continued, and a slight opiate given to procure rest, which had been wanting from
the

the beginning. On the eleventh day, he got well.

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4. A young woman, full of juices, of a sanguineo-choleric temperament ; on the third day after a laborious delivery, complained of a pain, as it were, in the skin, of the head, back and whole body, a spasmodic stupefactive sensation in the hands, and fiery sparkles before the eyes, anxiety of the præcordia was joined, with a febrile heat, prostration of the strength, thirst, watchfulness, redness and squalidness of the eyes. Gentle diaphoretics being used, and a temperate regimen, red miliary eruptions appeared on the fourth day, and on the fifth and sixth spread all over the body, with some white ones intermixed on the hands, breast and belly : after the sixth day the belly was bound, and the lochia were suppressed till the ninth, when both evacuations were procured by balsamic aloetic pills ; the urine was extremely fetid. Profuse acid fetid sweats succeeded till the eleventh day, and the urine likewise was of an ill smell. These discharges proved a solution of the disease, and the strength gradually returned.

5. A woman of thirty-three, three weeks after child-birth, from passion and a fright, had an erysipelas of the right breast, which was dis-

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cuffed by a powder of bean-meal, cerufs, and chamomile flowers. On the third day, a violent shivering and coldness came on, followed by an intense heat, a hardness and tenseness of the belly, and a restless night. These symptoms continued three days: on the fourth, miliary eruptions appeared, which, after having afflicted her three days longer with a burning heat and pungent pain of the skin, fell off, and the patient gradually recovered. The only medicines made use of were the milder fixed diaphoretics, diluents, and emollient glysters; with balsamic laxative pills in the decline.

6. A woman above thirty, who had been subjected to a miliary fever at almost every lying-in, fell into labour the seventh time, before customary venesection had been performed. On the fifth day from delivery, she was seized with a shivering, followed by heat, anxiety, want of sleep, pain of the head, and languor of the whole body: the lochia, which were in small quantity from the first, stopt. On the fourth day, some miliary efflorescences broke out, particularly on the pit of the stomach; but the symptoms still continued, spasms in the limbs and belly were joined, and the pustules disappearing again, the anxieties increased, the patient became restless, delirious, and fainted at times, insomuch that
life

life was despaired of. About four ounces of Miliary
blood being taken from the arm, the anxiety Fever.
immediately abated, the faintings went off, the
senses returned, a warmth and moisture were
diffused over the whole body, the eruptions
came out extremely numerous, and by proper
treatment were happily cured.

CHAP.

CHAPTER X.

Of EPIDEMIC, EXANTHEMATOUS, CATARRHAL FEVERS.

§ 1. *General History.*

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THE epidemic malignant catarrhal fevers appear under the form of quotidian remittents, running highest in the night, with serious defluxions, and prostration of the strength, and sometimes attended with an eruption of spots on the skin.

The face, from the beginning, assumes a morbid aspect; and the patient, three or four days before he takes to his bed, complains usually of weariness, a heavy pain of the body and limbs as if the bones were broken, a languor of the strength, want of appetite, slight faintings, cardialgic nausea, headach, and interrupted sleep, with the belly bound. The fever comes on in the evening, preceded by a chillness and shivering, and accompanied with such a weakness, that the sick can scarcely keep upright, an increase

crease of the headach, vertigo, and restlessness; in some, an exquisite pain of the back or sides, anxiety of the præcordia, burning heat of the internal parts, dryness of the fauces, a quick, weak, contracted pulse, great difficulty of breathing, and pale-coloured urine without any sediment. In some persons, on the fourth, or about the seventh day, spots break out upon the skin, particularly on the back, breast and arms, sometimes with, sometimes without relief; in some numerous, in others few; generally of a purple colour, sometimes of a pale rose-colour, or livid brown; sometimes broad, sometimes small, most frequently like flea-bites, from which they are readily distinguished by their leaving no red mark in the middle upon being pressed. The disease is now at its height; all the symptoms are exasperated, the patient gets no sleep, and becomes delirious, chill sweats come on, and the pulse is contracted and unequal.

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If to these be joined a starting of the tendons, want of thirst, rumbling in the belly, singultus, inflammation of the fauces from aphthæ, convulsions or syncope, with a coldness of the extremities, and profuse sweats; death is to be expected. But a copious warm sweat, happening about the seventh, eleventh, or fourteenth day, or a looseness continuing for some days, though

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though attended with a languor of the strength, prove salutary ; especially if the pulse grows softer, somewhat less quick, and more equal ; if the patient gains spirits, can lie with more ease, and becomes dull of hearing ; or if the urine appears turbid, and deposites a sediment ; which last is an almost certain presage of recovery.

These kinds of fevers are generally epidemic, from a long continuance of hot, moist, foggy and close weather ; especially in the spring and autumn, and wherever there are great and sudden interchanges of heat and cold, moisture and drought. Sometimes likewise they happen in the most wholesome constitution of the air, to persons who, from irregularities, have contracted an impurity of the juices, especially in the winter, after exposure to intense cold. Though they be of a contagious nature, yet those who are not previously disposed to these kinds of diseases, do not receive the infection.

The symptoms vary according to the circumstances of the sick. If the impurity be great, and tending to a putredinous dissolution, they are all violent, the spots of a brown or black colour, and the disease fatal. Where the juices are less corrupted, the symptoms prove less vehement,

hement, and the spots of a purple or pale rose-colour. Where perspiration has been suddenly checked, a coryza, sneezing, violent cough, and defluxions of acrid humours on the fauces and epiglottis, are joined. Sometimes the petechial spots are preceded, accompanied or followed, by miliar eruptions, distinguishable by the itching, heat and roughness of the skin, and their peculiar fetid sour smell. These are sometimes red, and sometimes white; the latter, which are the most dangerous, sometimes rise into pustules of a considerable size, filled with an extremely acrid serum: if this happens in the decline, as about the eleventh or fourteenth day, or later, with great anxiety, restlessness, difficulty of breathing, fainting, and coldness of the extremities, the patient, already much exhausted, generally dies.

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Catarrh.

Persons of a robust constitution, and accustomed to exercise, by a proper regimen only, often escape better, than such as are naturally weak, or have become so from irregularities, inaction, or fatigue of mind. Profuse evacuations by sweat, stool, or urine, happening at the beginning, or not on the critical days, are a dangerous symptom. Where the disease proves fatal, the patient is carried off by an inflammation of the meninges of the brain, or of the fauces
and

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and œsophagus, or of the stomach. The blood drawn in these fevers, is either fluid, ferous, and red ; or thick and blackish.

§ 2. *General Method of Cure.*

The cure of these malignant fevers depends more on the constitution of the sick, than the art of the Physician. If the juices be extremely impure, the body lax and spongy, and not sufficiently perspirable, and the strength depressed ; neither the choicest remedies, or the most skilful treatment, will avail. On the other hand, if the mass of blood and humours be not greatly corrupted, nor the vital motions weak, or the spirits low ; if the habit be nervous and slender, and the pores open ; a salutary solution is to be expected, either spontaneously, or with little assistance from art.

The general indications are, To prevent the putrid resolution of the juices ; by mild acids, as vinegar, lemon-juice, the dulcified acid spirits, particularly that of sea-salt. To dilute and obtund acrimonious humours ; by aqueous liquors, barley-water, ptisans, weak chicken-broths, with lemon-juice, &c. To promote the cuticular excretion, by gentle diaphoretics ; and the alvine, by emollient glysters, or manna, with cream of
 tartar

tartar cautiously exhibited. To keep up and recruit the strength; by the moderate use of wine, agreeable simple waters, and jelly of hartshorn, with lemon-juice, sweet orange-juice, and sugar.

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Catarrh.

§ 3. *Practical Cautions and Observations, with the particular Method of Cure.*

1. The principal point in the cure of these dangerous fevers, is a proper regimen. The sick must be kept, through the whole course of the disease, in a moderate and equal heat. By too great heat, the dissolutive motion of the blood is increased, the anxieties heightened, the belly dried, the humours rendered more acrimonious and impure, the strength exhausted, the sweat forced out too early, too profusely, and without relief, and the exanthemata propelled to the skin. By the imprudent admission of cold, especially to the feet, perspiration is apt to be checked, the eruptions repelled, gripes, diarrhœa, and hiccups brought on, and the critical evacuations disturbed: nearly the same ill consequences happen from an unequal regimen, or too sudden a transition from cold to heat, or from heat to cold. The purity of air is of great importance: the sick must never lie in a low room, or confined air: when loaded with the morbid exhalations, it must be cautiously discharged, and renewed.

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2. Particular care must be had to keep up a freedom and equality of perspiration; for the most salutary excretion of the morbid matter, is by the cuticular emunctories. The linen and bed-clothes are never to be changed; nor should the bed be made about the time of eruption, or when a crisis is expected. It is advisable to wear stockings and a night-gown in bed, that all access of cold air may be prevented.

3. An erect situation of the body and head, both in and out of bed, must be avoided, especially where the pulse is weak, the strength greatly depressed, and the disease at its height. The heart being now too weak to propel a sufficient quantity of blood perpendicularly to the head, the patient is apt to faint, the motion of the heart and blood is lessened or stopped, the skin is contracted, the exanthematous matter, now more malignant, is repelled, and being transmitted to the nervous parts, excites convulsions, delirium, or mortal gangrenes.

4. The mind ought to be calm, the spirits kept up, and all occasions of dejection, fear, or passion, avoided. Many who otherwise might probably have recovered, have died from the prediction and inculcation of death; all the symptoms immediately growing worse.

5. The

5. The stomach is not to be loaded with broths or other animal food, either in the beginning or decline of the disease, much less at its height; for these farther oppress the strength, generate crudities, and supply fresh fuel to the distemper. There are many examples of ill consequences from nourishing foods taken freely, even in the decline, after all the symptoms had abated; such as anxieties of the præcordia, restlessness, depression of the strength, and sometimes death.

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6. With regard to medicines, those of the more powerful kind, strong volatiles, purgatives, emetics, diuretics, and the hot spiritous sudorifics, are never to be given. Nothing is here to be effected by violent means.

7. As this disease has periods of exacerbation and remission, we must carefully attend to these in the exhibition of medicines, which otherwise will be of greater injury than advantage to the sick. During the heat and exacerbation, simple diluents, acidulous liquors, small doses of nitre, and a temperate regimen, are proper. After the paroxysm, when the skin is more lax and soft, and more disposed to excretion, gentle diaphoretics may be given. As the disease is frequently carried off by a flux of the belly, this symptom is never to be stopped, more especially about

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the time that a crisis is expected: if nature inclines to this evacuation without due success, it may be safely promoted by manna, with cream of tartar and tamarinds.

8. Regard must likewise be had to the circumstances of the patient, for the same method of treatment is not proper for all. If the heat, both internal and external, dryness of the mouth, and thirst, are great, so as to endanger a delirium, nitrous medicines and diluents are to be given frequently, but in small quantities at a time. In sluggish phlegmatic temperaments, and fearful dispositions, where the heat is mild, without thirst, the pulse weak and languid, the strength depressed, and the patient dull and sleepy; abstain from cooling medicines, and give repeated small doses of gentle cordials and diaphoretics. If the eruptions approach to the nature of the red miliary pustules; antimonial diaphoretics, diluents, emulsions, and the mineral anodyne liquor, are most to be relied on: in the white miliary eruptions, the anodyne liquor may be advantageously mixed with the volatile aromatic spirit.

9. Though in these kinds of dangerous fevers, we are not so much to regard the symptoms, as the primary disease of which they are the effect; yet

yet sometimes it is necessary to guard against Malignant Catarrh. their approach, or avert the danger threatened after their appearance. In violent headaches and deliria, the best remedy is a chicken or pigeon, killed and cut open, and applied warm to the shaved head; or an epithem of bread, with salt, nitre, camphor, oil of rhodium, and cherry or peach-kernels, laid on the forehead and temples. Fainting, vomiting, hiccups, syncope, heart-burns, and extreme oppressions, are relieved by a plaster of theriaca, expressed oil of nutmegs, camphor, balsam of Peru, saffron, essence of lemons and a little spirit of wine, applied to the region of the præcordia. In great heat and dryness of the fauces, jelly of hartshorn, with lemon-juice and sugar-candy, is of service; as are likewise gargarisms of a decoction of figs, with syrup of mulberries and nitre. In great sleepiness, the calves of the legs, and soles, are to be rubbed with vinegar in which rue-leaves have been infused; or a mild blistering plaster, about the size of half a crown, is to be laid on the calves. If miliary eruptions repelled, occasion anxiety and restlessness, mix the volatile aromatic spirit with dulcified spirit of nitre. In coughs, give oil of almonds and extract of saffron.

10. Bleeding at the nose is an alarming symptom. If the flux indeed is moderate, and the

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body full of blood, it proves rather salutary than injurious; but this is rarely the case. A few drops give no relief, but rather presage a delirium and inflammation of the fauces: by a copious hæmorrhage, the strength is depressed, the cuticular excretion checked and diverted to the internal parts, and the eruptions dangerously repelled. We are therefore to guard against the afflux of blood to the head, by keeping the feet constantly in a moderate warmth and moisture, and avoiding cold; by applying a blister, which gives little pain to the calves of the legs, and keeping the belly open, either by nitrous medicines given frequently in small doses, or by glysters, or by manna. If the discharge from the nose is too sparing, and yet a redness and fierceness of the eyes, and strong pulsation of the temporal arteries, shew that the blood flows impetuously to the head; besides the revulsions above mentioned, and cupping in the nape of the neck, it is advisable to promote the evacuation, by forcing a straw up the nostrils, or by scarification. Excessive fluxes of the belly may be moderated by adding to the diaphoretic powders, a few grains of cascarilla; though external medicines, as a balsam composed of expressed oil of nutmegs, essential oil of mint, and balsam of Peru, anointed on the abdomen, are here to be preferred to internal ones. In profuse sweats,

sweats, avoid too much heat from bed-clothes, abstain from warm liquors, and give small doses of slight astringents along with nitre. If vomiting and hiccups are violent, nothing is more effectual than the liniment above recommended, applied externally, and the anodyne liquor taken internally.

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11. Venesection, in these eruptive fevers, is to be used with caution; and proves of greater service for the prevention than the cure. In pregnant women, and such as are liable to immoderate uterine hæmorrhages, and likewise in persons of both sexes, who are subject to scorbutic miliary eruptions; after a hard winter and spring, bleeding is a good preservative. But in great depression of strength, when the disease is already formed, when catarrhus affections are joined, and putrid or malignant fevers are epidemic; venesection is entirely to be abstained from. With regard to evacuation of the first passages; if the stomach has been overloaded, especially with improper food, a grain or two of emetic tartar, dissolved in an infusion of manna, may be given with much advantage; but these kinds of medicines have place only in the beginning of the disease. Some highly recommend blisters; which doubtless have their use, wherever there is any danger of the retrocession of

Part I. the exanthemata, where the eruption proceeds
Chap. 10. slowly, and the patient is dull and heavy: in
these cases, blisters applied to the arms or legs,
have soon occasioned a copious efflorescence all
over the body. A mild blister is here to be pre-
ferred to the common ones.

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CHAPTER XI.

Of the PETECHIAL FEVER.§ 1. *General History of the Petechial Fever.*

THE petechial fever is a malignant contagious disease, with great depression of the strength, and petechiæ, or small spots on the skin, like flea-bites, which leave no red speck in the middle on being pressed, and come forth without any burning, itching, rising or roughness of the skin. These proceed from a corruption and putrid dissolution of the fluids; and from that circumstance, for the most part, portend death.

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The sick complain usually, from the beginning, of such a prostration of the strength, that they can scarcely walk or stand upright, without fainting; a degree of weakness, which, in other fevers, happens only at the height: a heat and pain of the head are joined, with dulness, solicitude, dejection and despondency of mind. There is no refreshing sleep, but a constant

L 4 watchfulness;

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watchfulness; the appetite entirely fails; the lively colour of the face is lost; the pulse is small, languid, and unequal; the sick are extremely restless, and lie in unusual postures, and the limbs are as it were convoluted; the fibres of the muscles are convulsed, with a kind of undulatory motion; the tendons start and are contracted; the breast is oppressed, and sometimes a dry cough is joined. Many have no thirst, heat, pain, or anxiety; and make no complaint but of languor and want of sleep. The urine at first is like that of persons in health. On the fourth, fifth, or seventh day, the petechiæ appear, chiefly on the back and loins: they are more or less numerous, of various colours, and for the most part rather symptomatical than critical.

So far are these spots from proving salutary, that their number is a mark of the corruption of the juices; a livid, a blackish green, or a leaden hue, indicate a gangrenous corruption: those who recover, are relieved, not by the eruption, but by profuse sweats of an acid fetid smell, or a critical flux of the belly. The greater number die, either of a mortification of the stomach, intestines, or other viscera, or a phrenitis, or an inflammation of the fauces and œsophagus: the corpse emits an intolerable stench. The pre-
sages

signs of death are, want of thirst, or an un-
 quenchable one; the tongue dry, chapped, and
 blackish; the fauces inflamed and covered with
 filth, with a difficulty of deglutition; a shortness
 of breathing, and straitness of the breast, remain-
 ing and increasing after the eruption, or an in-
 crease of the delirium and other symptoms after
 a sweat and flux of the belly; the urine neither
 appearing turbid, nor depositing a sediment; a
 great disorder of the mind, catching as at light-
 bodies in the air, starting of the tendons, invo-
 luntary ejection of the feces, cold sweats, and
 convulsions, which intercept the breathing.

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These malignant fevers arise in part from an
 unwholesome constitution of the atmosphere:
 moist, close, foggy weather, impedes the saluta-
 ry excretion of the corruptible parts of the
 blood and juices, which consequently are accu-
 mulated in the body: in these seasons likewise
 the common grain and other vegetables used in
 food, are less wholesome and refreshing, and
 yield, on fermentation, less spirit than when
 produced in warm and dry summers. Putrid
 exhalations from stagnant waters, excrementiti-
 ous animal matters, or animal bodies corrupt-
 ing, are another principal cause of these putrid
 distempers. The persons most susceptible of the
 infection are those of a phlegmatic and sanguine
 temperament,

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temperament, a lax and spongy habit, a fearful and anxious disposition; whose strength has been exhausted, or constitution broken, by luxury and intemperance, or by abstinence, watching, labour, or hæmorrhages; and cachectic women, whose menses are suppressed.

These kinds of fevers are frequent in the army, from alternate exposure in the field to a moist hot and a moist cold air, sleeping unsheltered in marshy places, unwholesome food, drinking stagnant and putrid waters, hunger, watching and fatigue, and the noxious exhalations from the excrements of men and other animals: the disease, however, does not usually make its appearance, till rest and full meals have succeeded in the winter-quarters. In hospitals, jails, and other places where a number of people live together in confined air and ill accommodated, these fevers are also frequent.

§ 2. *Prevention and Cure, with Practical Observations.*

1. The cure of these malignant fevers is to be attempted in the same manner as that of the foregoing; but such certainty or success is not to be expected in the cure as in the prevention of them. Purity of air, regularity in the non-naturals,

naturals, and the moderate use of wine, are effectual preservatives. When these diseases are epidemic, avoid places of a low situation, close ill-aired houses, and let the moisture of the air be corrected by fire and fumigations: abstain from every thing that may weaken the body, or impede the natural excretions, as violent commotions and fatigue of mind, long watching; excessive venery, and cold; and from whatever may generate crudities in the first passages, as unwholesome food or liquors, or excess in such as are wholesome, the constant smoking of tobacco, the immoderate use of coffee, a liquor not friendly to the stomach, and much less so to the nervous system. Good wine, Rhenish in particular, is to be drank both at meals and in the mornings: those who made use of this medicine, with moderate exercise and a proper diet, were not affected by most sickly seasons. After the crisis of the fever also, wine properly drank is superior to almost every other medicine: it raises the strength, resists putrefaction, and promotes the cuticular excretion.

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2. With regard to the cure, acids, as lemon-juice or distilled vinegar, mixed with the ptisan or other liquors used for common drink, are the most effectual remedies, at the beginning, for abating heat, and preventing putrefaction. Such medicines

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medicines as, by keeping up the strength, attenuate the saliva, and promote expectoration, are likewise of much advantage; for scarce any one who spits freely has been observed to die of these diseases: with this intention, oxymel of squills may be joined to alexipharmic mixtures. Volatiles, sudorifics, a warm regimen, and hot liquors, which some practitioners recommend, are highly improper; for by these, the putrid motion and orgasm is increased, and a greater depression of the strength brought on.

3. In the decline of the disease, no excretion is more salutary than a flux of the belly. It is observable, that these kinds of fevers rarely go off by a sweat or hæmorrhage alone, but frequently by a diarrhœa happening on the seventh, ninth, or eleventh day, though nothing is of worse consequence than a violent flux at the beginning. If the solution of malignant, catarrhus, and exanthematous fevers, be effected by this evacuation, the patient remains free from white miliary eruptions, which otherwise frequently supervene about the eleventh day, when the pulse has become equal.

4. As this is the method which nature follows, it ought likewise to be carefully pursued by the Physician. Repeated observations have shewn, that

that whatever advantage is to be expected from art in the cure of putrid, malignant, and pestilential fevers, consists chiefly in the prudent use of proper laxatives, not at the beginning, but on the days called critical, that is, from the seventh to the fourteenth. Acrid purgatives, even senna not excepted, are highly injurious: the most proper are manna with cream of tartar and tamarinds, solutive syrup of roses strengthened by salts and duly diluted, or the purging mineral waters.

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5. With regard to bleeding, Physicians are not agreed; and indeed these fevers differ so much from one another, that experience must be had recourse to in particular cases. Thus much is certain, that it is an useful preservative, in plethoric habits, and such as are accustomed to high feeding and a sedentary life: in these cases, those who have been blooded, have either remained free from the disorder, or had it milder than others.

6. Particular care must be had, that the stomach, which in these diseases is extremely weak, be not loaded with food. The prejudice of the common people, that the strength is to be repaired by plenty of aliment, has been destructive to many; the fever, after promising a salutary

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tary issue, being brought back again, and proving then more dangerous than at first.

§ 3. *Histories of Cases.*

1. In 1683, the troops of Brandenburg brought from Hungary, where they had been sent against the Turks, into their winter-quarters in the principality of Minden, a malignant petechial camp-fever, which spread successively through many towns and villages. Besides the great prostration of strength, and other customary symptoms of malignants, there was commonly at the very beginning a violent and lasting pain of the head, particularly in the forehead, with a vertigo, redness of the eyes, tingling of the ears, forgetfulness, followed by a delirium. Some complained of hoarseness, infarction of the breast, burning heat of the fauces, and saline catarrhs. Livid and yellowish petechiæ, appearing early and covering the body, were always a mortal symptom. In some the corruption ran so high, that walking for a little time on a cold floor, produced a sphacelus of the soles, of which I saw two examples. All those who were treated with too hot or too cold a regimen, or with warm alexipharmics, died. Those on whom the spots were few and red, and the common people who had recourse neither

ther to medicines nor to Physicians, by the use of a temperate regimen and drinking whey, had a crisis on the fourteenth day, either by profuse cold weakening sweats, or a diarrhœa. A dulness of hearing, coming on in the decline, and continuing some time, was salutary. Those who escaped were some months in recovering perfect health. In many a swelling of the feet or belly succeeded, with a slow fever and want of appetite. Some, especially those who exposed themselves too soon to the cold air, contracted a heaviness of the head and difficulty of hearing, and some continued deaf through their whole life. Water acidulated with spirit of nitre, in the proportion of about fifty drops to a quart, drunk plentifully warm, was of service: in some it procured a bloody flux of the belly, which relieved the headach and other symptoms; but those who were cured by this medicine, laboured somewhat longer than others under a weakness of the stomach and intestines. The medicine which I directed to almost every one, consisted of burnt hartshorn, crabs eyes, a little nitre and camphor, with rob of elder-berries, vinegar and water; which, when given repeatedly on the first attack, frequently put an end to the disease. To prevent the progress of the contagion, the sick were ordered to be as much as possible kept apart from those in health. Good wine to be used moderately, with a due observance

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observance of the non-naturals; blood to be drawn in gross plethoric habits, and a gentle diaphoretic to be taken every other morning in bed.

No country is more fruitful of malignant fevers than Hungary and Pannonia. The great heat of the days, even in Autumn, and the coldness of the nights, the plenty of animal food and sweet wines, and the insalubrity of the waters, dispose the humours to corruption, and disturb the course of perspiration. The diseases of the climate are felt most severely by soldiers unaccustomed to it, exposed to its vicissitudes, and to moisture from low encampments.

The Hungarian fever is particularly disposed to affect the head, especially in those who abound with blood: hence bleeding is advisable on the first attack. Where the stomach is overloaded with vitious humours, a mild but effectual emetic, and a laxative also are proper. I commonly order a decoction of manna, with half a dram or a dram of ipecacuanha, or an infusion of manna in wine, with two grains of emetic tartar; after which, mild diaphoretics take place far more effectually.

Another

Another remarkable particularity of this fever Petechial
Fevers. is the profuse cold sweats, of a vapid acid smell, continuing for some days and nights, and proving a salutary crisis.—Though these, contrary to other cold sweats, are favourable, they nevertheless shew a great dissipation of heat and strength. Analeptics are on no occasion more necessary than in this case: the body is also to be wiped and rubbed with warm linen cloths to excite heat, lest the patient should sink when on the brink of recovery.

Profuse sweats from the beginning, continuing through the course of the disease, shew a dangerous colliquation and dissolution of the blood.

2. A robust young man, of a sedentary life, after drinking strong malt liquor, and after exposure to cold, complained of a pain of the teeth, weariness, and unusual languor. Next day succeeded a cough, spitting, coryza, slight heat, increase of the weakness, loss of appetite and sleep, frequent shiverings and coldness of the extremities, and a confusion of the head. On the fourth day, he took to his bed, and drank whey made with citron-juice; from whence he was seized with a looseness, and had upwards of twenty stools in twenty-four hours: the strength became more depressed, a tremor and delirium en-

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fued, and on the fifth day petechial spots appeared, without relief: on the sixth, the urine and feces were voided involuntarily, he breathed with difficulty, and at night expired.

3. A woman above thirty, subject for some years to menstrual irregularities; languid and thin, after the cure of malignant fistulæ of the cheeks, fauces, and glands of the neck, left by an erysipelas of the head; complained of a sudden intense pain of the head, with dulness, drowsiness, weakness, and a violent dry cough. The debility increased daily, she had no appetite or sleep, the breathing was strait and laborious, the pulse frequent but weak. On the sixth day, small spots appeared on the breast; on the seventh, a delirium came on, followed by convulsions and death, after which the spots became more conspicuous. Soon after, her brother, who had grieved immoderately, complained of a pain of the head and limbs, depression of the strength, loss of appetite and sleep: on the fourth day, petechiæ appeared, and the symptoms abated; but on the seventh, the petechial eruptions were succeeded by miliary ones, with an increase of the heat, restlessness, and anxiety. Nevertheless, by degrees he got well, without the use of any other medicines than

than absorbent powders, some simple waters, and ptisan. Petechial
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4. A young man of twenty, after quarrels and a fright, had a sleepless night, and, for some days following, a debility, lassitude, and loss of appetite. On the fifth day, he was seized with a shivering, anxiety, and preternatural heat, with a quick weak pulse. An emetic was given immediately, some blood taken away, and bezoardics and nitrous powders subjoined. On the sixth day, red spots came out, and some blood dropped from the nose; the urine was like that of persons in health; he had little or no sleep, but retained some strength, and was able to rise now and then, and walk about the room. On the seventh day, having sat up a quarter of an hour, sufficiently covered, and warm, he suddenly fainted, most of the petechiæ disappeared, and those which remained looked black; great anxieties of the præcordia ensued, and the patient became furious, so as to draw a sword on the attendants. A bezoardic powder, with nitre and camphor, somewhat abated the delirium, but the weakness increased, shiverings continued, convulsions came on, and in the evening he expired.

5. A lady of forty, of a corpulent, lax, spongy habit, who had daily indulged her ap-
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petite

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petite in a variety of foods, sweets, acids, milk and wines, was attacked with the usual symptoms of a malignant fever, then epidemic, lassitude, restlessness, shivering, pain of the head and back, and next day anxieties of the præcordia, and prostration of the strength. A mild emetic brought up a large quantity of vitiated humours, and relieved the anxiety and headach. On the third day, a considerable quantity of blood was taken from the arm, which, on cooling, contracted a glutinous crust: after this she grew worse, a continual sleepiness came on, the face grew tumid, and the fauces squalid; the urine thin as in health. On the fifth day the breathing grew difficult, and, after a restless night, red spots appeared on the neck, back and hands, which relieved the anxieties, but did not remove the sleepiness. Glysters procured large fetid stools; and on the seventh day a plentiful sweat broke out, the patient nevertheless continuing motionless and insensible. Wine was coveted, and gave relief. Three hours after, four ounces of Rhenish were again allowed: the strength was remarkably recruited, the sweat grew more profuse, the sleepiness and stupor went off, and a laxative every other day completed the cure.

6. A clergyman, from attendance on a darling son in a malignant fever, was seized with
the

the same disease. An extreme languor, pain of the head and limbs, restless sleep, anxiety and burning heat about the præcordia, and a total loss of appetite, were joined by a swelling of the tonsils, and a burning heat of the fauces : on the fifth day he grew delirious, colliquative sweats came on, and on the ninth he calmly expired. At the same time, his wife, with a young lady a relation, suffered the same symptoms and the same termination. The disease spreading through the rest of the family, seven in number, the pains of the head suggested venesection, which was performed in the feet : the fever proved milder, petechial and miliary spots came out, and all the seven escaped.

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It is observable, that the three who were not blooded, had no eruption, and died under a high delirium, which may perhaps have been owing in part to great grief. Whether bleeding be really useful or hurtful in these malignant exanthematous fevers, is not yet ascertained among Physicians, nor can any rule be given that shall hold in them all. Large experience has afforded me this practical canon : If the patient be plethoric, of large vessels, and accustomed to venesection ; if the disease comes on in health, and does not arise from a putrid constitution of the air ; if it quickly affects the head, so as to

Part I. threaten a delirium, a moderate quantity of
Chap. II. blood, taken from the feet, either before, or
soon after the attack, can never do harm: such
circumstances warrant bleeding, even in the
Hungarian fever, or the plague.

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CHAPTER XII.

Of the PLAGUE.§ 1. *General History of the Disease.*

THE true pestilential fever, or plague, is a most acute disease, arising from a poisonous miasma imported from some eastern countries. And unless this contagious matter, by the vigour of the vital motions, be quickly expelled by buboes or carbuncles, the disease generally proves fatal.

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The plague differs from other contagions, in being the most acute with which we are acquainted; sometimes proving fatal, not only on the first or second day, but even on the attack. It does not arise, in our climates, from any irregularities in life or diet, or insalubrity of the air; but, even when the condition of the air is most healthy, attacks people of every constitution, arising solely from a peculiar and foreign contagion. This contagion is propagated, not only by the human body, but may adhere to any po-

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rous substance, and may from thence be communicated with full vigour to thousands. Its activity, however, is destroyed by cold; and hence, in northern climates, it is a rare disease.

The numerous and severe symptoms attending this disease, are nowhere better described than by the ancient historian THUCYDIDES, when he gives an account of the plague at Athens, in treating of the Peloponnesian war. Patients, he observes, were first affected with violent pain and great sense of heat in the head; the eyes appeared red and inflamed; the fauces and tongue acquired a bloody appearance; respiration became difficult and fetid. To these symptoms succeeded sneezing and hoarseness, stricture at the breast, and violent cough; many also were affected with hiccup. The body to the feel externally did not seem remarkably warm; but internally there was a sense of burning heat, so that patients could not bear even the slightest covering in the way of bed-clothes. They had an earnest desire to throw themselves into cold water; and many, who were not sufficiently attended to, plunged themselves into wells, where they attempted to allay their insatiable thirst. With these symptoms they had also constant watchfulness.

The

The body, while the disease continued violent, did not seem to waste. Those, therefore, who died in a few days, were cut off while some degree of vigour yet remained ; while those who survived this period, when immoderate diarrhœa came on, perished from weakness. The disease sometimes affected the extremities, as the hands or feet ; and several escaped with the loss of these, some with the loss of eyes. Some were affected with forgetfulness, so as to be totally ignorant of every circumstance, either respecting themselves, or their friends.

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No remedy was discovered from whence material benefit could be said to be derived in this affection; for what was serviceable to one, proved prejudicial to another. No state of body, as far at least as respected strength or weakness, was proof against the affection, and people of every mode of living fell equally victims to it. One of the most distressing circumstances was the dejection of mind which prevailed throughout the whole disease. For when any one understood he was affected, he gave way to despair ; and thus the disease was aggravated from no endeavours being made to struggle against it. Attendance on the sick was the most ready means of infection, which greatly aggravated the fatality of the disease.

What

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What the peculiar nature of the specific contagion is, by which the plague is excited, cannot be determined *a priori*, as it is not obvious to the senses. But the pestilential poison, whatever it be, when introduced into the body, quickly disturbs and perverts every function; and unless it be speedily propelled from the internal to the external parts, it proves suddenly fatal. Here a salutary termination does not happen as in other febrile diseases, by sweating, stool, urine, or the like. These, on the contrary, whether happening spontaneously or induced by art, for the most part are the forerunners of a fatal termination: the only perfect, salutary and critical termination of a plague, is by tumours on the surface, which usually appear on the third or fourth day, and the sooner they take place the more is the violence of the disease mitigated. These tumours are of two kinds: the first have been called by the Greek name of *bubo*, a term in common to many tumours. The pestilential huboes chiefly affect glandular parts, most frequently they attack the inguinal or axillary glands; sometimes the parotid, the submaxillary, those in the neighbourhood of the larynx, or those of the breast. They at first begin under the form of hard, glandular tumours, with a tensive pain and sense of heat. If they be of a favourable kind, they gradually

gradually enlarge, become softer, and terminate in suppuration. The second kind of pestilential tumours have been termed *anthraces* or *carbunculi*; these are of a small size, hard to the feel, and of a livid or black colour. They seem to contain a sanious fluid, and are surrounded by an inflamed circle. The skin above them is firmly attached to the tumours below, and, in many cases, a separation, as in the case of gangrene, takes place between this and the sound skin, the tumour falling out like an eschar, leaving a cavity. From these carbuncles no part of the body is exempted; but they are chiefly situated in the membranes of the muscles, and in the fibrous substance of the skin, on the back, the arms and the thighs.

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Those to whom the plague proves fatal, commonly die on the second or third day from syncope. But some also are cut off at later periods from sphacelus induced, particularly when it affects the viscera. In other cases, they die from symptomatic fever, induced by the inflammation, pain, and intolerable heat of the pestilential tumours. After death, the body soon acquires a peculiarly fetid smell, and the progress of the swelling and putrefaction is very rapid.

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§ 2. *Method of Prevention and Cure.*

As it is certain that the pestilential virus is entirely brought from distant countries, the greatest security must consist in avoiding contagion. Hence the justice of the remark of SANCTORIUS, who observes, that those who propose any other effectual means of avoiding the plague than by flight, are either grossly ignorant or wish to enrich themselves by wicked imposition. But where this is unattainable, all who remain exposed to the infection should live temperately, avoiding every excess, but chiefly guarding against affections of the mind: they should shun every thing which can depress the spirits, restrain perspiration, or generate crudities in the primæ viæ. To those who are much among the sick, it should be recommended, that they shun swallowing the saliva; that they frequently wash their mouths with vinegar or wine, and snuff up the same fluids into the nose. It is also proper, that they should take frequently small quantities of Rhenish wine, or of the acetum bezoardicum, diluted either with wine or water. The liberal use of lemon-juice also, which is much employed by the Turks, is to be recommended.

As an external means of prevention, issues have been strongly recommended; and the advantages derived from them, as recorded by HILDANUS, demonstrate the utility of the practice. Perhaps the good effects obtained from them, arise from the contagious matter being discharged by these emunctories. The unusual swelling and tumour taking place about the issues, corroborates this opinion. But probably also, the confidence derived from them, as is the case even with amulets against the plague, is productive of considerable benefit.

Pestilen.
Fever.

In the treatment of this affection, it should be the object of a Physician, in the first place, to promote, by the aid of nature, the expulsion of the pestilential poison, by proper passages, particularly by the critical tumours; and secondly, to support the strength of the patient, and to obviate urgent symptoms. But by what remedies these ends are most successfully to be accomplished, is not determined; and, from my own experience, I can offer no remarks. The method of cure is nowhere more accurately described, than by that learned and experienced Physician Jo. LANGIUS. He advises, that the belly should first be opened by gentle glysters; and that afterwards a sweat should be excited, which, in proportion to the age and strength of the

the

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the patient, should be supported for two, three, or more hours. Six or seven hours after the sweat, when the strength has been recruited, by the use of broths, he directs, first blood-letting, and afterwards the use of cordial alexipharmics. In the decline of the disease, where the appetite was languid, he had recourse to rhubarb, cassia, manna and tamarinds; he directed, that the ulcers formed by the buboes and carbuncles should not be suddenly heated, and that the patient should be recruited by generous diet and drink. With respect to the treatment of buboes and carbuncles, when these appeared, he directed cupping, or the application of hot plasters and poultices formed of theriaca, flower of mustard, onion-root, and the like. He ordered the opening of the abscess before maturation, by scarification, caustic, or even actual cautery. By this mode of cure, he observes, that, under the aid of Divine Providence, many recovered.

§ 3. *Practical Cautions and Observations.*

The observation of SANCTORIUS, that few of those of better rank can be recovered from the plague by the aid of medicines, while a greater proportion of the common people recover without them, is well worthy of attention. Where
nature

nature is strong and robust, the cure will succeed better when committed to her, than if impeded and disturbed by the interposition of art. Nothing seems to be more pernicious, than to have recourse in this disease to the alexipharmic roots, as they have been called, when given merely by themselves; such as angelica, serpentaria, imperatoria, and the like. These increase the anxiety at the præcordia, augment the heat, and promote the dissolution of the humours. But although hurtful by themselves, they have been found useful when combined with acids. And much benefit has particularly been derived from the aqua cardui benedicti, combined with vinegar. The acetum theriacale also has been productive of good effects. These alexipharmics, combined with acids, however, are chiefly useful on the first day. And indeed all medical assistance, unless exhibited within the space of twenty-four hours from the attack, will be of no avail.

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Of all the remedies which have been employed in the plague, none have been found more useful than acids. These, either given by themselves, or united with absorbent earths, as crabs eyes, calcined hartshorn, Armenian bole, or the like, have been strongly recommended by FRACASTORIUS, MINDERERUS, and others, both for the prevention and cure of the disease.

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In this disease also, much benefit may be derived from emetics; for in plagues, it is a principal indication that the poison should be quickly expelled from the body. And, as in many cases there is reason to believe, that it is first attached to the saliva, and descends into the stomach before being carried to the blood, the most ready outlet is thus afforded for it. It is here therefore of the utmost importance, that vomiting should be excited as soon as possible. Accordingly, a remarkable case is mentioned by RIVERIUS, where the disease was removed from vomiting having been excited, by titillation of the fauces with a feather dipped in oil.

Concerning the utility of venesection authors are divided, some extolling, others condemning its use. Upon the whole, it would seem that it ought never to be practised immediately upon the attack of the affection, while tremor and fear are still very great; but on the second or third day, if plethoric symptoms be urgent, and the strength permit of it, when employed to a moderate degree, it may be useful.

Disputes have also subsisted, with respect to the use of nitre. These are to be determined by paying due attention to the symptoms and constitution of the patient. If the patient be plethoric,

thoric, of a sanguine temperament, and affected with intense thirst, great heat, and severe head-ach, nitrous medicines are useful. But where torpor and sleepiness occurs, where the pulse is weak, the extremities cold, and the patient under the influence of great fear, nitrous medicines should be abstained from. Where nitre is to be exhibited, it is always safer that it should be given with camphor than alone.

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Fever.

The skilful treatment of the critical tumours, is, in the management of plague, an object of great consequence. If the buboes rise slowly, recourse must be had externally to cupping or blisters. If they soon become protuberant, suppuration must be promoted by cataplasms of figs, white lily roots, roasted onions, or the like. When they have suppurated, they must be opened and dressed with the balsamum arcaei and unguentum basiliconis. As the fluid contained in the anthraxes is more liable to corruption, suppurative applications are not to be employed, but the falling off of the incrustation is to be promoted by acrid plasters; and when these have fallen off, the parts below are to be dressed with unguentum Ægyptiacum.

With respect to regimen, as in other exanthemata, a great degree of heat in the bed-
 VOL. I. N chamber

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chamber is to be avoided. But, on the other hand, cold is equally to be shunned, lest the eruption of the tumours should be impeded, and the discharge of the subtile poisonous matter through the pores of the skin in any degree intercepted.

CHAP.

CHAPTER XIII.

Of the ERYSIPELATOUS FEVER.§ 1. *General History of the Erysipelatous Fever.*

ERYSIPELAS is a fever attended with a florid red swelling of some particular part, not losing its colour on being pressed, of a burning heat and pain, but without tension or pulsation.

Erysipel.
Fever.

This disorder is by no means so slight and innocent as is commonly imagined: it is often dangerous, sometimes fatal, and discovers great affinity with the most terrible of all diseases, the pestilential fever. Like that fever, it frequently comes on very suddenly, with great shivering, heat, prostration of the strength, violent pain of the head and back, vomiting, and delirium: the eruption happens about the fourth day: the malignant matter, as in the plague, often affects first the inguinal glands, and thence descends, fervid and burning as it were, to the feet; sometimes fixes in the mammary and axillary glands,

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and occasions a suppuration of the part. The erysipelatous fever, however, differs from the pestilential, in not being contagious, nor of equal virulence or danger.

The erysipelas is commonly divided into true and spurious. The true or simple affects only the surface of the skin, and readily yields to proper remedies: the spurious or scorbutic, is lodged deeper, more difficult of cure, of longer continuance, and apt to terminate in unkindly ulcers.

The erysipelatous fever is sometimes idiopathic, sometimes symptomatic. In the anasarca, ascites, and inveterate jaundice, it not unfrequently accedes as a fatal symptom: it is likewise often complicated with wounds of the nervous parts, particularly of the skull and its membranes, and with fractures of bones, to the great danger of the patient.

In some persons, particularly the young, the disorder is mild, neither affecting the glands, or raising a high fever: the erysipelas appears in the feet about the second day, and by a freedom of perspiration soon goes off. In cacochymic persons, and those of an advanced age, the fever runs high, the pain and restlessness are
more

more violent, and the disorder, without extreme care, proves of long continuance and difficult cure.

Erysipel.
Féver.

If the eruption happens in the feet, the tibiæ look bright, and if the disease be violent, a pain shoots along the legs, which is exasperated by every slight touch. If in the face, the skin grows gradually red and tumid, with numerous watery vesicles; the eyes are closed by the swelling, the breathing is difficult, the nostrils and fauces very arid and dry, generally a dulness and sleepiness attend, and sometimes from the neighbourhood of the brain, the patient is in danger of a mortal phrensy or lethargy. If the breasts be affected, they swell, often become hard as a stone, with exquisite pain, and are apt at length to suppurate. An erysipelas under the arm-pits, is accompanied with a most violent pain, and generally terminates in an abscess. In children, it happens most frequently in the umbilical region, from thence spreads over the abdomen, with violent symptoms, and proves for the most part fatal.

There is a singular species of erysipelas, rarely mentioned by the ancients, called by PLINY *zoster*, by later writers *zona*, or *the shingles*. It surrounds the body, a little above the navel, in

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form of a red zone some inches broad, of a most intense heat, with several acrid pustules which burn like fire; this species is dangerous, and sometimes fatal. But the most malignant of all, is that which, in aged cacochymic persons, after great weakness, and sometimes in putrid and pestilential fevers, happens in the region of the heart, or in the hands, or other parts of exquisite sensation, and which in a little time turns livid, and afterwards black, a sign of approaching death. This is described by PLATERUS under the name of *macula lata*.

This disease is most common to persons of a sanguine and choleric disposition, to the young and plethoric; to pregnant women, scorbutic and cacochymic old people. Those who have suffered it once, are subject to several returns: it is sometimes annual, and even menstrual. In these cases, if the patient be old and of an ill habit, it generally at last carries him off.

The causes which bring on the erysipelas in those disposed to it, are chiefly violent passions, particularly fear and anger; immoderate heat and sudden cold; the omission of customary artificial evacuations, or suppression of natural evacuations of blood.

Erysipel.
Fever.

An erysipelas which comes out without any great fever, on any of the less noble parts, if the patient be young, and the body not impure, is attended with little danger: by an increase of perspiration, the tumour gradually subsides in a day or two, the heat and pain go off, the red colour changes into a yellow, and the cuticle chaps and scales off. The disease is sometimes even salutary, and has proved a happy solution of convulsive asthma, and convulsive colics.

A large and deep erysipelas, where the part affected is of exquisite sensation, and the habit impure, is always dangerous: its red colour either changes into a livid and black, a sign of mortification, or the tumour cannot be dissolved, and leaves malignant ulcers and fistulæ, or at least a large swelling remains, not easy to be removed. Those who die of this disorder, are carried off by a fever, which is generally attended with a great difficulty of respiration, sometimes a delirium, and sometimes sleepiness.

§ 2. *Method of Cure.*

The indications of cure are, to moderate the febrile commotion if too great, and promote it if nature be too weak, to expel the morbid matter, to obtund the acrimonious irritating
 N 4 humour,

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humour, and finally to discuss the inflammation.

The expulsion is promoted by the mixtura simplex with dulcified spirit of nitre; tincture of scordium or pimpinella, with an equal quantity of the mineral anodyne liquor, or an infusion of scordium, elder-flowers, and fennel-seeds. Nitrous medicines moderate the efforts of nature, and a mixture of the volatile aromatic spirit, with the anodyne liquor, support them. If they are neither immoderate nor deficient, rob of elder-berries, with a little burnt hartshorn, given in elder-flower water, is the most serviceable medicine.

For obtunding the acrimony of the humours, besides the remedies already mentioned, water-gruel, or decoctions of hartshorn-shavings, scorzonera, althea, liquorice, china-root, and fennel-feed, are to be used as common drink. The discussion of the inflammation is effected by external applications; but of these there are scarce any that can be used with safety, excepting a powder of elder-flowers and liquorice, to be occasionally strewed on the part.

Erysipel.
Fever.

§ 3. *Practical Cautions and Observations.*

1. A continual gentle diaphoresis is to be kept up, particularly in the part affected: this greatly mitigates the pain, and promotes the discussion.

2. Emetics, purgatives, bleeding, frequently invite the matter back into the blood, whence a high fever, intolerable pains of the stomach, and other dangerous symptoms, which do not yield till the eruption re-appears: gentle diaphoretics, and a blister applied to the part which it occupied before, promote this effect.

3. Most kinds of topics repel the erysipelatous humours, with the same ill event. Those which have in many cases appeared serviceable, or at least innocent, have in others been manifestly prejudicial.

4. If the tumour begins to turn livid, if the pain sinks deep, and seems to reach to the periosteum, a suppuration is to be expected. In this case, suppurative applications are always to be mixed with antiseptics, such as the emplastrum commune, with camphor and saffron. After the discharge of the pus, which ought to be made

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made successively, and not all at once, a balsamic liquor, composed of tinctures of St John's wort-flowers, balsam of Peru and myrrh, with some drops of spirit of turpentine, is to be injected, to prevent the abscess from changing into a fistulous and malignant ulcer.

5. If a continuance of the symptoms, after the eruption, and a change of the colour to a brownish red, threaten a mortification, give internally nitre and a little camphor, and apply frequently to the part, with double linen cloths, warm mixtures of lime-water, camphorated spirit of wine, litharge vinegar, with tinctures of scordium and myrrh.

6. If the patient be plethoric, and accustomed to spiritous liquors, it is advisable to bleed at the beginning, particularly if the disorder affects the head. After the evacuation, care must always be had to keep up a freedom and equality of perspiration.

7. In the chronical scorbutic erysipelas, gentle laxatives and diaphoretics are to be given alternately, with a decoction of the woods, cichory-root, and dandelion-root, for common drink.

8. Erysipelatous

8. Erysipelatous affections, often returning, which are never without danger, are most effectually prevented by a strict regimen, and the use of mineral waters. When these cannot be employed, bleeding in the spring and autumn, and gentle purgatives, which purify the blood, are chiefly to be depended on.

Erysipel.
Fever.

§ 4. *Histories of Cases.*

1. A man of thirty, of a pale complexion, and sedentary life, after a violent fright and exposure to rain, had a shivering fit for an hour, followed by intense heat, with a pain in the groin, lassitude, inability of moving the right foot, retching and restlessness. On the third day, a red burning tumour appeared on the foot, which, from various external applications, and drinking plentifully of cold liquors, was discussed, but succeeded by another very large one on the ankle, which suppurating, was attended with a fever, and intense pain of the part. The abscess, when opened and cleansed by balsamics, promised well. But after sudden passion, a fresh shivering came on, followed by intense heat of the whole body, a fever, constant watchfulness, and swelling of the left ham, which could not be discussed, and which prevented the patient from being able to extend the foot, or lye on
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the side affected. The tumour suppurated, an abscess was formed in the thigh, which discharged a great quantity of pus, and brought on extreme emaciation. Nevertheless, by injections, plasters, and internal medicines for purifying the blood, a complete cure was obtained.

2. A man of sixty-eight, formerly subject to an hæmorrhoidal flux, which had disappeared for two years, after travelling in hot moist weather, and drinking, whilst in a passion, a large draught of strong liquor, was seized with a shivering and vomiting, succeeded by a most intense heat, affecting the head, disturbing the sleep, and occasioning an alienation of mind. Next day a tumour and burning pain were complained of in the groin, which, on the third, extended over the whole thigh and tibia. The former symptoms now remitted, but the pulse remained quick, and the patient became lethargic. A volatile tincture was given internally, spirit of sal ammoniac applied to the nostrils, and a discutient cataplasm to the part affected. The sleepiness increased so much, that the patient could not be awaked: on the sixth day, the red colour of the foot changed to brown and black, the face became red and swelled, the belly, bound from the beginning, returned five
 ineffectual

ineffectual glysters; and on the eighth day, a difficulty of breathing and death ensued. Erysipel.
Fever.

The volatiles and external repellents were here extremely ill judged; and bleeding, with a laxative, at the beginning, as imprudently omitted.

3. A lady upwards of thirty, after exposure to cold moist air, was seized with a shivering, heat, restlessness, and, on the third day, an erysipelas in the leg, which being soon subdued, she was plentifully blooded to prevent a return. In a little time it appeared again in the same place, and continued longer than at first; bleeding was repeated, but in a fortnight the erysipelas came on again. Absorbent powders, with nitre, scarifications and laxatives were used, but the inflammation still returned every two months, and the foot was constantly weak and swelled. The caroline waters, with a strict regimen, and the frequent use of a balsamic elixir, effected a cure of the erysipelas; and rheumatic pains, which followed for some weeks, were removed by a second course of the same waters.

The repeated bleedings were in this case very improper, for the disease seems to have proceeded from a deficiency of perspiration, which that evacuation tended farther to suppress.

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4. A gentleman upwards of fifty, subject to scorbutic miliary eruptions, was seized suddenly, after intense cold, with a languor, restlessness, loss of sleep and appetite, and shivering, succeeded by heat, with a slight disorder of the senses. These symptoms continued near three days, when an intolerable burning heat was complained of, from the præcordia to the back, and a red zone appeared all round the body, full of white and blackish red pustules. Mild diaphoretics being given internally, and the oleum ovorum applied towards the end externally, the pain abated in a fortnight, the pustules dried up, and the skin became rough and scaled off.

5. A gentleman of sixty, of a thin habit, had an erysipelas twice a-year about the ankle, which sometimes suppurated. A cautery being made betwixt the ankle and the knee, the swelled foot, tied with a bandage, dipped in camphorated spirit, the gross foods which he had been accustomed to abstained from, broths, with parsley, cichory and scorzonera-root taken in the mornings, and the purging waters, with one-third wine, for common drink, he has long been free from any return.

PART I. SECTION II.

CHAPTER I.

Of the INFLAMMATORY FEVER.

§ 1. *General History of the Inflammatory Fever.*

THE febris acuta sanguinea, or synocha of the Greeks, is an universal inflammatory fever, beginning with only a slight chillness, and scarce any shivering; coming on with its full violence at once, and continuing without abatement or exacerbation till the crisis; the pulse large and full.

Inflam-
matory
Fever.

This fever happens most frequently in the spring and summer; to young plethoric persons, of a sanguine or sanguineo-choleric temperament, accustomed to bleeding; from drinking cold liquors, or a suppression of perspiration, when the body is overheated. It is usually divided into simple and putrid: the first happens in healthful constitutions, from a mere stagnation and accumulation of laudable blood in the
small

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small vessels, and proves mild, and of short duration: the other, in impure habits, where the strength has been exhausted by preceding diseases, anguish of mind, venery, or irregularities; it continues to the fourteenth and even to the twenty-first day, attended with much more violent symptoms, a prostration of the strength, and sometimes brown or black spots on the skin, which threaten immediate danger. There is also an epidemic synocha, which for the most part is complicated with a catarrhus fever: this is most frequent in the autumn and winter, to such persons as are full of blood and juices: it begins with the usual symptoms of the synocha, and about the fourth day, if skilfully treated, assumes a catarrhus appearance: the defluxions and cough continue for a considerable time, teasing the patient during the night,

The crisis of this fever is for the most part a copious sweat, and not unfrequently a plentiful hæmorrhage from the nose, which in other fevers is a less favourable solution: sometimes likewise it goes off in a flux of the belly; but this happens only when complicated with some degree of malignity. If properly treated, by bleeding and antiphlogistics, a salutary crisis happens often on the fourth day: if these are omitted, the fever, unless very slight, runs on to the fourteenth or seventeenth day. When fatal,
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the patient generally dies of a gangrenous inflammation of the meninges, stomach, intestines, or other parts.

Inflam-
matory
Fever.

§ 2. *Method of Cure, with Practical Cautions and Observations.*

1. The cure is to be effected by bleeding, antiphlogistics, diluents, and the milder diaphoretics.

2. Copious and early bleeding is in no fever more necessary than in the synocha. But we are not to follow the advice of some of the ancients, of letting the blood run till the patient faints: it is better to repeat the operation, if requisite, than take away too much at once. Those who have an aversion to venesection, have been relieved by leeches applied to the neck and median vein. If the blood moves impetuously to the head, so as to occasion a strong pulsation of the temporal arteries, a tumidness and redness of the eyes and face, and only a few drops of blood fall from the nose, the discharge is to be promoted, in order to prevent a delirium, either by scarifying the nostrils, as practised by the Egyptians, or forcing up a straw.

3. After bleeding, diluents impregnated with acids and nitre, are the principal remedies; and,

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if taken in sufficient quantity, not only abate the heat and thirst, but likewise raise a sweat, and procure sleep.

4. When a critical sweat has begun to appear, the milder diaphoretics may be given to promote it; but before this period they have rarely place, unless in mixture with lemon-juice or nitre. The warmer alexipharmics, wine, warm liquors, and a hot regimen, must be avoided, as these, by farther increasing the heat of the blood, aggravate the symptoms, and render the fever of longer duration. Even the putrid and malignant synocha, does not bear the warm bezoardic tinctures.

5. The belly should be kept open, not by the stronger purgatives, but by glysters of whey, honey, and oil of almonds, with a little nitre and common salt. In the decline, when signs of coction appear in the urine, the remains of the fever may be purged off by manna, cream of tartar, cassia, or rhubarb.

6. This fever, in young persons, and those of a sanguine temperament, is often attended with a continual sleepiness; a symptom not dangerous, and which yields to a cataplasm of juniper-berries, sal ammoniac, and vinegar, applied to
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the soles of the feet. A delirium likewise, from the omission of venesection at the beginning, has frequently continued without danger to the crisis.

Inflam-
matory
Fever.

7. But if, from improper management, the neglect of bleeding, or the exhibition of warm medicines, white miliary eruptions, a frequent attendant of the acute fevers of our times, supervene, the disease proves highly dangerous. If, after the belly has been long bound, a sudden and profuse discharge of bilious and corrupted feces succeeds, accompanied with gripes, the patient for the most part dies, and the intestines, upon dissection, are found mortified.

§ 3. *Histories of Cases.*

1. A gentleman of twenty-four, florid and full of blood, in the spring, having, when violently heated by exercise, gone into a cellar to drink wine, complained next day of an universal weariness and slight chilness, which were followed by an intense heat, quick pulse, anxiety, laborious breathing, and an oppression at the breast: on the third day, the temporal arteries beat strongly, the head ached and became tumid, the eyes were protuberant, the patient had no sleep, and began to be delirious. At this time, some blood was

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taken away, a saline mixture given in small doses every two hours, small beer with some drops of spiritus nitri dulcis used for drink, and the belly, which had been costive for some days, opened by emollient and laxative glysters. The urine became concocted, and deposited a red sediment ; when some gentle diaphoretics being given, the symptoms gradually abated, and a copious sweat, on the seventh day, proved a complete solution.

2. A gentleman of twenty-five, corpulent and full of juices, of a recluse sedentary life, in the spring, after hard exercise in the evening air, complained of weariness, loss of appetite, a restless night, and afterwards of slight shivering, succeeded by great heat, anxiety, an extremely high pulse, and flushing of the face: the belly was costive, the urine red and pellucid. A volatile warm medicine, and sudorific regimen, procured no rest, but increased the anxiety and difficulty of breathing ; the patient began to be delirious ; and on the third day, a burning pain of the fauces, and a difficulty of deglutition, came on. By venesection, the use of nitrous medicines, glysters, gargarisms, and a discutient epithem applied to the throat, the pain and tumour abated ; a profuse hæmorrhage from the nostrils ensued on the seventh day ; and a copious sweat, on the eighth, completed the crisis.

3. A

3. A tradesman, recovering from a violent inflammatory fever, which had lasted fourteen days, was, upon eating too freely, immediately seized with extreme anxiety, difficulty of breathing, restlessness, and total prostration of the strength, and in twenty-four hours expired.

Inflam-
matory
Fever.

The convalescents ought studiously to avoid irregularities, and too hasty repletion; as these are apt to bring back the fever, which, on its second return, proves more dangerous than at first.

4. In February 1729, after an uncommonly severe and variable winter, a fever, compounded of the inflammatory and catarrhal, was epidemic in several parts of Europe. It came on with a weight of the head and whole body, loss of appetite, lowness, intense heat, and a quick, large, and sometimes unequal pulse. Some had from the beginning a slight disorder of the senses, and tremor of the limbs; others, a constant sleepiness, and dejection of mind; none could bear an erect posture without fainting. Where this disorder was treated as the simple inflammatory fever, by plentiful bleeding at the beginning, saline diaphoretics, diluents, and a temperate regimen, the fever went off in a copious sweat on the fourth day; but coughs, defluxions, restless

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nights,

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nights, and sometimes rheumatic pains of the limbs, were complained of to the fourteenth. When bleeding was omitted, and warm medicines made use of, the fever continued violent to the fourteenth day, or longer, with a delirium, constant watchfulness, acrid and stubborn catarrhs: sometimes petechiæ appeared, and the patient died.

CHAP-

CHAPTER II.

Of the ARDENT or BILIOUS FEVER.§ 1. *General History of the Ardent or Bilious Fever.*

ALL acute fevers, accompanied with great heat, thirst, anxiety and quickness of the pulse, are commonly called *ardent* or *burning fevers*; but this name is more peculiarly appropriated to one species, differing from the rest both in the symptoms and cure, and which is commonly stiled the *bilious remitting fever*.

Ardent or
Bilious
Fever.

The true ardent fever is attended with an intense burning heat of the whole body, and an unquenchable thirst: the tongue is dry, rough, chapt, and black: the pulse quick, small and weak: the eyes clear, bright, of a reddish cast: the nails livid: the face and spittle yellow: the urine of a deep bile colour; and fetid bilious matters are voided copiously by stool. All the symptoms are exasperated every other day, as in the tertian remitting fever, of which this is ma-

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nifestly a species. It usually terminates on the seventh day, either in a salutary sweat, or in a fatal inflammation of the stomach, duodenum, and the parts communicating with the biliary ducts.

This fever is frequent in Asia, Greece, Egypt and Italy; but in our more temperate climate is rarely seen. It happens only in very hot summers, to persons of a bilious constitution, and great sensibility; from the immoderate use of spiritous liquors, fatigue of mind or body, and obstruction of perspiration. In the room of the true ardent fever, we have the ardent or bilious synocha, and choleric fevers.

The bilious synocha begins without any considerable shivering; is accompanied with great heat, thirst, watchfulness, anxiety and inquietude; is exasperated every other day; and terminates either in a salutary sweat or hæmorrhage of the nose, or in a fatal inflammation of the meninges or viscera, or a syncope.

In the choleric fever, vomiting or constant retchings, and copious bilious stools, are joined to the foregoing symptoms: the extremities are cold, whilst the internal parts are scorched with heat. This fever is justly divided into more
and

and less acute: in the first, the symptoms are extremely violent, the bilious evacuations both upwards and downwards very copious, and accompanied with a synoptic cardialgia: the patient generally dies before the seventh day, of a high inflammation of the stomach or duodenum, the signs of which are, an intense, burning, fixed heat about the præcordia, with a coldness of the extremities, great restlessness and anxiety, hiccup, a copious eructation of bile and saliva, a yellow colour and cadaverous appearance of the face. The less acute run on for a longer time, and have periods of remission or perfect intermission: the exacerbations happen sometimes every day, and sometimes every second day. These, without early assistance, are apt to change into slow fevers, or obstinate disorders of the stomach, pains, eructations and inflations.

Ardent or
Bilious
Fever.

§ 2. *Method of Cure.*

In the bilious synocha, where the body is full of blood, venesection performed at the beginning, immediately mitigates the symptoms, and hastens a salutary crisis: in women, and those who abound with blood, if this evacuation be omitted, the fever proves of a more violent and dangerous kind; for nature will attempt the excretion of the superfluous blood, chiefly from the nostrils; and if this does not happen at the proper

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proper time, or does not sufficiently succeed, the blood will stagnate in the vessels of the brain, and occasion a dangerous inflammation of its membranes.

When the fever is of the true ardent kind, and the patient of a thin habit, and not very plethoric, venesection has no place. Nor is it allowable in choleric fevers, either of the more acute or remitting kind, when accompanied with copious evacuations upwards and downwards, a great anxiety of the præcordia, and coldness of the extremities.

After bleeding when requisite, cool liquors, drank plentifully, but by little at a time, are the principal remedy; provided there be no true inflammation of the stomach or other internal parts, no great anxiety or swelling of the præcordia, or coldness of the extremities, or a contracted pulse, or deficiency of blood. There is no fear that liquors moderately cold will do harm: their good effects will soon be visible, by an abatement of the heat and thirst, and a gentle sleep and sweat, the consequence of the dilution of the humours and relaxation of the solids. Pure water may be given by itself, or boiled with toasted bread, or with barley, or made into juleps with lemon-juice and sugar; to which may be occasionally added small doses of nitre.

§ 3. *Practical Cautions and Observations.*

Ardent or
Bilious
Fever.

1. A moderate and equal warmth is of greater service in the cure of these kinds of fevers, than the most costly medicines. Nothing is more prejudicial than a hot regimen, warm liquors, and the direct sudorifics which operate by heating the blood. The patient should be but lightly covered; and laid in a large room, that he may enjoy a pure air. It is probably owing to mismanagement in these particulars, that so many of the common people are carried off by acute fevers, though naturally of a constitution sufficiently strong to overcome the disease.

2. The Physician must carefully attend to the efforts of nature. At certain periods, a shivering and chilness of the extremities is perceived, with a distension of the internal parts, oppression at the breast, a contracted pulse, and a turgidness of the face and vessels of the head. If these prove critical, they are soon followed by a copious and universal sweat or an hæmorrhage from the nose, and the fever abates or goes off; if not, the body does not regain its wonted heat, nor does the pulse become equal, or sleep return, or any sweat succeed, unless a cold one about the head and neck; a phrenitis, convulsions,

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fions, extreme anxiety of the præcordia, difficulty of respiration, and a great depression of the strength come on, and the patient dies.


3. During these efforts of nature, all medicines and aliments must be abstained from, and nothing farther attempted than the keeping up a moderate and equal heat. But if the salutary excretions do not succeed spontaneously, they are to be promoted by the milder diaphoretics given internally, and the use of external discutients, and means giving revulsion.

4. If a plethoric headach and beginning delirium follow the shivering, and only a small quantity of blood drops from the nostrils, an epithem composed of vinegar, rose-water, camphor dissolved in spirit of roses, oil of rhodium, and nitre, is of excellent service for cooling, discussing and resisting inflammation. The same epithem laid on the præcordia with linen cloths, abates anxiety and restlessness, and occasions a greater liberty of breathing. Great benefit is likewise to be expected, in the prevention of a phrenitis, from opening the veins of the nostrils, either by scarification, or by forcing up a straw; the feet and thighs being at the same time kept warm and rubbed, and a discutient diaphoretic mixture, with distilled vinegar, given internally.

5. For

5. For abating thirst, and moistening the dry fauces and tongue, nothing is more effectual than nitre dissolved in whey, in the proportion of half a dram to a quart; this is to be drank cool, by little and little at a time, and the mouth occasionally washed with a mixture of water, syrup of mulberries and nitre. Injections are by no means to be recommended; for by the strong attrition, the pain and inflammation of the fauces are increased. To prevent an anginous inflammation, a linctus of julep of roses one ounce, nitre fifteen grains, camphor three grains, and oil of almonds one dram, is to be slowly swallowed down.

Ardent or
Bilious
Fever.



6. Though purgatives cannot be given in these diseases without manifest danger, yet openness of the belly is of advantage. This is to be obtained, during the fever, by glysters of milk and honey, with a little nitre; in the decline, when the urine deposits a sediment, by gentle laxatives, as manna, tartar, tamarinds and rhubarb.

7. Cold water, a valuable remedy in this disease, requires great circumspection in its use. It must never be given in large draughts at once, but in frequent small ones; never in the beginning of the fever, but at the end of some days; never in the time of accession or exacerbation,

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bation, or during the rigor, or whilst the pulse is small or intermits, or where there is a plethora, but only when the extremities are warm, and the pulse equal, quick and large.

8. In high choleric fevers, absorbent powders are to be given in considerable doses every hour, with five grains of nitre, and a dram of oil of almonds, in two ounces of common emulsion. The mineral anodyne liquor is likewise of good service, for restraining the immoderate bilious evacuations, especially if mixed with some drops of the essential oil of mace, and exhibited in watery vehicles. By these medicines, properly timed and dosed, a cure has been obtained in a little time, both of the cholera and dysentery.

§ 4. *Histories of Cases.*

1. An officer of high rank in the army, upwards of forty, full of blood and healthful, except in being subject to rheumatic and catarrhus defluxions in spring and autumn ; after drinking strong wine immoderately (at least four quarts), and travelling home in a cold cloudy evening, had an extremely restless night, and complained in the morning of a most intense heat, a burning in the fauces, thirst, headach, and prostration of the strength, with a large and quick pulse. On drinking tea, the anxiety increased, and retchings

ings to vomit came on. A nitrous powder, and bleeding, gave no relief. On the fourth day, the strong beer, which he had been allowed plentifully for drink, being exchanged for cold water impregnated with lemon-juice and julep of roses, of which four quarts were drank in a few hours, and the powders continued; a most profuse sweat broke out, some stools followed, sleep returned, and he recovered.

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2. A lady of thirty-six, sanguineo-choleric, of a nervous habit and great sensibility, from costiveness and frequent pregnancies, complained of pains and inflations of the stomach and left hypochondre, and a deficiency of the menses; for the relief of which, various medicines were long made use of without effect; mineral waters could not be borne, on account of the weakness of the stomach. After a violent fright and passion, she fell into a fever with most intense heat and thirst, entirely preventing sleep, and surprisngly depressing the strength. Diluents, refrigerants, absorbents, and diaphoretics, with nitre, were exhibited: some ichor and blood flowed from the uterus for twenty-five hours. On the seventh day, a shivering and coldness of the extremities came on, the pulse became quick and contracted, the face turgid, and the eyes glossy. A discutient diaphoretic mixture of alexiterial

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lexiterial waters, vinegar, calx of antimony, crabs-eyes, cinnabar and fyrup of citron-juice, being given, a heat returned all over the body, the pulse rose, the eyes lost their glossiness, and an universal sweat succeeded, which being kept up by gentle diaphoretics and warm infusions, greatly alleviated the symptoms : sleep however did not return, nor did the heat entirely go off, nor was the strength recruited, marks that the crisis was incomplete. Accordingly on the ninth day, a febrile paroxysm came on again, with great anxiety of the præcordia, intense heat, restlessness, and difficulty of breathing; next day, red and white miliary eruptions appeared, watery blood flowed again from the uterus, and liquid bilious feces, voided insensibly, shewed a sphacelous inflammation of the intestines. Next day, an alienation of the senses ensued, the pulse became irregular, and she expired.

3. An officer in the army, upwards of fifty, robust and full of blood, prone to passion, after a violent fit of anger and irregularities, whilst in liquor, fell immediately into a vehement burning fever, with great anxiety, thirst, headach, sleepiness, emotion of the mind, and pain of the right side: on the fourth day, he coughed up blood mixed with phlegm; his urine was thin and flame-coloured. Glysters of whey, honey and oil

oil of almonds, with a little nitre, were injected several times; emulsions, with nitre and ptisans of barley, hartshorn-shavings and scorzonera, drunk to the quantity of seven quarts a-day, for some days together: the pained part of the thorax and præcordia was anointed with a liniment of oil of almonds, camphor and extract of castor. By these means the heat was abated: on the seventh day, the urine became turbid, and deposited a little sediment: on the ninth, a diarrhoea came on, continued four days, and proved a solution of the fever.

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Fever.

4. A lady above thirty, of a strong constitution, bilious and impatient, fell into an exquisite ardent fever. A bezoardic tincture, several times repeated, exasperated the anxiety, heat, restlessness, watchfulness, loquacity and costiveness, and brought on gripes, and a difficulty of deglutition, which always increased in the evenings. On the seventh day, she seemed expiring, but in some hours came to herself again, a sweat breaking out, and red spots appearing on the skin. The belly, which had been bound for six days, was now opened by a glyster; and a mixture of distilled waters, vinegar, crabs-eyes, and mixtura simplex exhibited. About the fourteenth day, the symptoms gradually abated, but the continual fever changed in-

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to an intermitting tertian, with its usual appearances; this also was happily removed, after the fourth attack, by laxatives and febrifuges. Next year, at the same season, the same disorder returned; by early bleeding, diluents, nitrous powders and gentle laxatives, it proved much milder than before, and changed into an intermittent on the fourth day.

5. A man above seventy, of a thin habit, pretty healthful, who had never been blooded, was seized with a high fever, the pulse large, and somewhat hard. A decoction of *sarsaparilla*, china, *scorzonera*, cichory-root, and liquorice, with cinnamon and citron-peel, was used for common drink; a bezoardic tincture, and *mixtura simplex*, given for raising a sweat, and a mucilaginous linctus to soften the parched fauces. The disorder increased: on the eleventh day, he was quite exhausted, burning hot, the tongue dry, chapt and black, the face almost cadaverous, the belly loose: the heat was inextinguishable, and two days after he expired.

This disease was very imprudently treated. By early bleeding, diluents, and gentle nitrous diaphoretics, the patient might probably have been preserved. A blackness of the tongue, in
ardent

ardent fevers, generally presages an inflammation of the internal parts.

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6. A lady about thirty, choleric and active, of great sensibility, florid and full of blood, after immoderate and improper food, passion and cold during the night, fell into a choleric fever; the stools were copious and bilious, the vomitings deep green. The symptoms soon remitted a little, the skin, before cold, grew warm and moist, but a great debility remained, with a languid and quick pulse, and vomiting of every thing taken into the stomach. On the third day, after a slight shivering, the symptoms returned as violent as at first: saline powders increased the disorders in the first passages. After the third fit, ten drops of the mineral anodyne liquor were given every three hours, in half an ounce of a simple water, cold, by which the vomiting was abated, so that emulsions and ptisans were retained. The next paroxysm was milder. Diluents, the anodyne liquor, and absorbent powders with nitre, were continued; but the fever did not entirely yield. After the ninth fit, it was successfully removed by an electuary of Peruvian bark, chamomile-flowers, rob of elder, and syrup of citron-juice.

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7. A gentleman had a choleric fever, with extreme anxiety, restlessness, internal heat, and frequent stools, which depressed the strength so much that he several times fainted. Absorbents, with a little theriaca coelestis, diascordium, emulsions, spiritous liniments, gave no relief. On the third day, he seemed reduced to the last extremity; when finding himself refreshed by a draught of cold water, which he had earnestly desired, about a quart was drank: the heat abated, rest ensued, the stools became more moderate; by the use of nutritious broths, he recovered strength, and in a little time got well.

8. A lady about twenty-four, of a tender constitution, and great sensibility, after a fit of passion, and eating fruit immoderately, whilst drinking the Caroline waters, fell into a vomiting and purging, upwards of twenty times in twenty-four hours, with an anxious heat and pain about the præcordia, coldness of the extremities, and great restlessness. By drinking milk with chicken-broth, taking absorbent powders every two hours, and anointing the abdomen with a liniment of oil of almonds, oil of mint, and oil of mace, the anxieties and gripes were removed, the evacuations lessened; and by adding cascarilla to the powders, a cure was obtained in three days.

C H A P.

CHAPTER III.

Of the INFLAMMATION of the STOMACH.§ I. *General History of the Inflammation of the Stomach.*

THE febris stomachica inflammatoria or gastritis, is an acute fever arising from inflammation of the stomach. The principal symptoms of this disease are a vehement internal burning heat, extreme anxiety, pain and tension of the præcordia, particularly about the pit of the stomach, great thirst, watchfulness, restlessness, coldness of the extremities, a somewhat hard, contracted, quick and unequal pulse, difficulty of breathing, and retchings to vomit: the patient suffers an exacerbation of the pain upon taking any thing into the stomach, especially substances of the acrid kind.

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The dolor cardialgicus or cardiac pain of the ancients, from a spasm of the stomach, has many symptoms in common with this inflammatory fever; particularly the anxiety, pain, cold-

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ness of the extremities, retchings and restlessness. It is distinguished by the heat in the region of the stomach not being so intense, nor the thirst and dryness of the tongue so great, or the pulse so quick and contracted, and by the stomach's better retaining aliment or medicines. Erosions of the stomach, which frequently succeed bilious fevers, the cholera morbus or violent passions, are easily distinguished from an inflammation, by their being unattended with fever, not coming on so suddenly, but by degrees, and the pain not being of so burning a kind. In inflammations of the intestines, the pain is more about the umbilical region, with frequent bilious frothy stools, which sometimes are slightly tinged with blood. The pulse is likewise quicker, and the heat of the external parts greater, than when the stomach is inflamed; for here the hands, feet, and nose, are rather cold than hot.

Inflammations of the stomach, from drinking cold liquors whilst the body is overheated, or from bile exagitated by passion, and too copiously poured into the duodenum, are mild and not very acute, and readily yield, at the beginning, to proper remedies. Those occasioned by corrosive poisons and drastic emetics, are more violent and dangerous, and unless speedily opposed

fed by medicines, of sufficient efficacy, prove in a little time fatal. Those which happen to aged, infirm, and scorbutic persons, or such as have been brought low by long anguish of mind, and also those which come on at the end of acute diseases, are the most dangerous of all, on account of the irremediable impurity of the juices, and a degree of weakness scarce reparable by medicine.

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A restlessness and tossing of the body, eructation of liquors, singultuous convulsions of the stomach and diaphragm, fainting, a cadaverous appearance of the face, an intermitting pulse, emotions of the mind, and convulsions of the limbs, are mortal symptoms, denoting the inflammation to be succeeded by a gangrene. On dissection, the stomach appears red, and when viewed against the light, full of small vessels turgid with blood; sometimes likewise it exhibits a number of black spots; sometimes the bottom of the stomach, with the duodenum and the biliary ducts and pancreas annexed to it, are black, fetid and corrupted; and sometimes the stomach is remarkably distended by flatulencies, with some spoonfuls of a blackish fetid ichor fluctuating in its cavity.

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§ 2. *Method of Cure.*

The general indications of cure are, to dilute the thick and stagnant humours, to relax the vessels, and to abate the heat. But as the causes of the disease are very various, the treatment in particular cases must likewise vary.

If the inflammation be brought on by caustic arsenical poisons, virulent purgatives or emetics, mercurial or other metalline medicines ill prepared; the most certain, safe, and speedy remedies are, unctuous substances, as milk, cream, oil of almonds or of olives, copiously and repeatedly taken; which by obtunding the corrosive particles, and relaxing the rigid fibres, allay the spasms and inflammation, restore the peristaltic motion of the stomach, and occasion the poison, now diluted, to be thrown up by vomiting.

If there be danger of an inflammation of the stomach from acrid bile, as in the cholera morbus, give jelly of hartshorn or other gelatinous decoctions, barley-water or water-gruel, with or without milk, or with oil of almonds. If a spasm of the stomach, arising from violent passion, threaten an inflammation, nothing is better than absorbent nitrous powders and the mineral anodyne liquor given alternately in simple waters

waters or emulsions : after the inflammation has been allayed, the bilious fordes are to be purged off with rhubarb,

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Inflammations, from the repulsion of excrementitious acrid humours from the surface, are most successfully prevented or removed by gentle diaphoretics, with nitre and a small portion of camphor, given along with emulsions, or a solution of camphor in dulcified spirit of nitre. The mineral anodyne liquor, mixed with one-fourth its quantity of volatile spirit, and given in small repeated doses, is likewise in these cases of excellent service; promoting a kindly sweat, throwing out the virulent exanthematous matter, and easing pain; at the same time rather refreshing the patient, than occasioning any weakness or dulness, as opiates usually do. If the pestilential, or other infection of that kind, which acts primarily on the stomach, and speedily corrupts and inflames it, has seized the body, give immediately a gentle emetic, and afterwards mild diaphoretics, with nitre and a little camphor, or eight or ten drops of a solution of one dram of camphor in one ounce of oil of almonds. The same medicines are to be used in inflammations of the stomach happening at the height of other acute diseases.

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External remedies are likewise to be called in aid : not the hot applications, camphorated spirit of wine, distilled oils dissolved in spirits, and stomach plasters ; but bladders full of warm liquor, a liniment of camphor one dram, dissolved in oil of almonds two ounces, and an epithem composed of vinegar of roses two ounces, camphorated spirit of wine two drams, tinctures of saffron and castor each one dram, and nitre half a dram.

§ 3. *Practical Cautions and Observations.*

1. Venesection is a certain remedy in inflammations of such viscera or other parts as abound with blood ; but if the parts affected are very nervous or fibrous, as the intestines, bladder, and urinary passages, which admit not a copious afflux of blood, it is of little service, but rather detrimental. Nevertheless, where violent colics, cardialgia, or passion, threaten an inflammation of these parts, and the patient is young, plethoric, and accustomed to the use of wine, bleeding at the beginning is an useful preservative.

2. When violent pains threaten an inflammation, opiates mixed with sudorifics may prevent it : but when the disease is already formed, and has continued for some time, they bring on a sphacelus,

sphacelus, and accelerate death. Even the mineral anodyne liquor, though far safer than opiates, has at this time little place; nor is nitre proper, though at the beginning an excellent resistor of inflammation.

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3. As nothing is more apt to bring on an inflammation than drinking cold liquors, so nothing more effectually increases it: hence nitre, which liberally taken is considerably cooling, must be given only in small doses, along with emollients, as milk and emulsions. In violent cardialgic pains, which when ill treated are apt to be followed by a mortal inflammation, abstain from all irritating medicines, particularly purgatives and emetics, and even the neutral salts in considerable doses; for these increase the spasms, and exasperate the disease.

4. Violent passion, if unwholesome food or cold liquors are taken immediately after it, frequently occasions a mortal inflammation. This is most effectually prevented by vomiting; which must not be excited by the stronger emetics, but by warm water and oil. Many who were greatly disordered after passion, and where an inflammation was near at hand, on taking the mineral anodyne liquor with warm water, threw up a large quantity of bilious humours, and recovered.

§ 4. *Histories of Cases.*

1. A gentleman in the flower of age, of a robust constitution and extreme good health, after a most violent fit of passion and drinking some strong wine, complained of inexpressible pains and oppressions about the præcordia, retching to vomit, a burning heat of the stomach, and an uneasy sensation as if something were lodged there and making its way out. An antimonial vomit gave no relief, but rather increased the complaints: the pulse became small and scarce perceptible, and a cold sweat broke out: the patient quickly grew delirious, convulsed, and in ten hours expired. On dissection, a number of spots were observed in the stomach, partly black, and partly red, some penetrating deep into its substance.

2. A woman in a tertian fever, took eight grains of glass of antimony; which, on the approach of the fit, vomited and purged her strongly, and ceased to operate when the fever went off. The vomiting and purging returned with the next fit, and in like manner went off with it. They returned also with the third, accompanied with a most exquisite pain of the stomach, which quickly brought on excessive restlessness, coldness of the extremities, faintings, convulsions, and

and death. On dissection, the lower part of the stomach was found inflamed, red and black spots in the duodenum and annexed intestines, and the antimonial powder sticking in the crustaceous coat of the stomach.

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3. Several noblemen and gentlemen sat down to a dish that had been seasoned with arsenic instead of sugar. They had scarce tasted it, when all were seized with anxiety at the breast, pain at stomach, tremor of the lips, and retchings. I poured down milk and oil of sweet almonds plentifully and repeatedly, so as to keep them vomiting strongly for half a day; some vomited no less than one hundred times; and by this simple remedy all escaped. Most required no farther medicine; for some, who had drank more sparingly, oily glysters were necessary.

4. His serene Highness ———, in the flower of life, full of blood and juices, having, when strongly heated in hunting, drunk a large draught of cold ale, and exposed himself to the cold air; was seized with a shivering, languor, internal burning heat, watchfulness, restlessness, and retchings. From three grains of emetic tartar, he vomited thrice, with excessive anxiety, which increased at intervals to an insupportable degree: the strength was so far depressed, that he could

not

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not bear an erect posture without fainting; the pulse became languid, irregular, and sometimes quick; the breath extremely fetid; but the senses entire. On the sixth night, a violent shivering came on, followed by convulsions; and next day he expired as in a fainting fit. On dissection, the stomach appeared almost all over inflamed, expanded; and so near to corruption, that its substance opened on a slight touch; in its cavity, were some spoonfuls of fetid corrupted blood; in the veins, scarce any blood; the spleen, the left side of the stomach, and the left lobe of the lungs, were corrupted, blackish, and fetid.

It is extremely imprudent to venture on antimonial emetics, without being thoroughly acquainted with the disease. If, after such a medicine, the stomach is found inflamed, the Physician is inexcusable: if it was inflamed before, it was very wrong to give an emetic; if not, it was the emetic that brought on the inflammation. We may judge the internal parts to be inflamed, when the strength is greatly depressed, so that the patient is apt to faint; when the exquisite burning heat abating, a sense of coldness is complained of about the præcordia, and at times an eructation of saliva into the mouth; when a rumbling and sense of vapours are perceived in the belly from taking liquids; when the

the sick, from mere weakness, close their eyes and seem to sleep, but complain afterwards of greater debility and anxiety.

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5. A woman above fifty, of a sanguineo-phlegmatic temperament and spongy habit, had for some years omitted customary venesection, and indulged appetite and a sedentary life. From a fit of passion, she became languid, and lost appetite: after another, and drinking some cold ale, she was seized with a shivering, followed by an intense heat in the night, anxiety, restlessness, and a pungent pain in the region of the stomach, extending to the back, and preventing the exit of flatulencies. Carminatives and anodynes were taken; but the anxieties continued; convulsive motions intervened, with a tremor of the hands, and watery eructations into the mouth; the pulse, before quick and strong, became weak and unequal. On the fourth day, she complained neither of heat nor pain; but only of thirst, and an exquisite sense of cold in the region of the heart: she grew fond of warm liquors, particularly tea, which always made her worse. She lay quiet, but slept not; the debility increased; medicines had no effect: on the seventh day, hiccups came on: on the ninth, after a coldness of the extremities, she lay some hours insensible, and then calmly expired.

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This disorder was plainly an inflammation of the stomach, terminating in a gangrene. By proper remedies in the beginning, the patient might in all probability have been preserved.

6. A man about fifty, robust and healthful, was seized, after violent passion, with a tremor, shivering and coldness of the extremities, great anxiety of the præcordia, depression of the strength, nausea, retchings, and a bitter taste in the mouth. An emetic having procured but small evacuation with great anxiety, he repeated it: all the symptoms grew worse; he had continual singultuous eructations, but threw up nothing; extreme restlessness, oppression, and difficulty of breathing: there was an intolerable burning and anxious pain in the epigastric region, with a coldness of the extremities, and a small and somewhat intermitting pulse. From drinking plentifully of warm milk, the complaints were remarkably abated; but on taking an ounce of Epsom salt, they returned again with greater violence, and quickly carried him off. He survived but to the third day after taking the first emetic.

7. A young man of twenty, sanguineo-chole-
ric, thin, and passionate; after a violent quarrel
whilst in liquor, and being carried home in the
cold

cold air ; was seized with shivering, intense heat, restlessness, a burning pain in the right side of the chest, and great difficulty of breathing. Some medicines were given, and a vein opened on the third day, but without relief : he complained perpetually of internal burning heat, and intense pain upon taking any thing into the stomach ; the pulse was quick, weak, and sometimes intermitted ; the debility increased every day, till on the seventh he expired. The corpse was highly fetid ; the stomach surprisingly swelled and inflamed ; its lower part, with the pylorus, duodenum, and right lobe of the lungs, of a black and putrid appearance.

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of the
Stomach.

We have here an instance of the united power of ebriety, passion, and cold : the most deleterious poison could scarcely have occasioned so great a corruption in so short a time.

CHAPTER IV.

Of the ANGINA.§ I. *General History of the Angina.*

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Chap. 4.

THE angina is characterized by an inflammation of the fauces, with a difficulty of breathing and deglutition.

The angina is usually divided into external and internal. In the first, the outward muscular and glandular parts, the almonds of the ears, the root of the tongue, and the uvula, appear to the eye red and swelled. In the last, the interior nervous and muscular coats are affected, and no marks of inflammation are discoverable by the eye; though the pain and heat are violent, the patient is sometimes in such danger of suffocation, as to make little complaint of them; the tongue hangs out, the saliva runs off, the face is red and tumid, the eyes prominent, open and very red. When the internal muscles of the larynx are affected, the voice is suppressed, and the breathing extremely difficult; when

when those of the pharynx, the difficulty of swallowing is greater than that of breathing, and food or liquors are generally thrown back through the nostrils. An internal inflammation of the larynx was called by the Greeks *cynanche*, the external *paracynanche*; the internal inflammation of the pharynx *synanche*, the external *parasynanche*.

Angina,
or
Quinſy.

The angina is likewise divided into true and spurious, dry and moist. The true and the dry angina are attended with a very acute fever; the tongue is turgid with blood, and of a dark red colour; the face is likewise red; the temporal arteries beat strongly; sometimes a headach, sleepiness, dulness of the senses, faintings, great anxieties, restlessness, and coldness of the extremities, are joined: in the spurious, these symptoms are either absent, or far milder. The moist is less acute than the dry angina, and accompanied with a catarrhus fever; the tongue and fauces are covered with a thick, viscous, fetid mucus.

The angina is to be distinguished from the slighter inflammations of the fauces, frequent in scorbutic habits, and not affecting the respiration or deglutition: from the spasms in hysterical and hypochondriacal persons, which constrict the face, and occasion a difficulty both of breathing and swallowing, but are not attend-

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ed with a fever, and soon remit : from aphthæ, or painful, red, burning pustules, occupying some particular part of the fauces or tongue : and from the prunella alba, in which the whole region of the fauces is lined with a white mucus covering a burning inflammation ; the tongue is chapped ; the cavity of the nostrils also is covered with viscid mucus and inflamed ; and the pain and heat extend downwards to the præcordia.

The angina, both on account of the fever, and from its threatening suffocation, is a very dangerous disease : the internal sometimes proves mortal in less than twenty-four hours, especially where the muscles that constrict the aperture of the larynx are affected. That which supervenes in malignant fevers and other disorders, is rarely cured, on account of the weakness of the body, and the virulence of the matter. A sudden disappearance of the tumour, without any abatement of the symptoms, is a mark of the translation of the disease to the brain or lungs : in the first case, a phrenitis, in the latter a mortal peripneumony, ensues. If the suffocatory strangulation remits, and the tumour, pain and redness verge outwards, a salutary solution happens : if otherwise, the angina terminates either in suppuration, the consequence of which is a dangerous effusion of pus upon the lungs ;

lungs; or in death, the presages of which are, a foaming at the mouth, great swelling and purplish black colour of the tongue, shivering of the extremities, great straitness and anxiety of the præcordia, with a hard, convulsive and intermitting pulse.

Angina,
or
Quinsy.

§ 2. *Method of Cure.*

1. Wherever there are manifest signs of an accumulation of blood in the head, which not only increases the inflammation, but likewise gives rise to the mortal symptoms, venesection is the principal and almost the only means of relief.

2. After bleeding, the humours are to be determined downwards, by loosening the belly; not by strong purgatives, but by the milder laxatives given in a liquid form, as a solution of two ounces of manna, with a dram and a half of nitre, in ten ounces of whey. If the patient cannot swallow, glysters of milk, honey, oil, common salt and nitre, are to be injected.

3. After these evacuations, diaphoretic and lightly anodyne mixtures are of service, as the alexiterial waters, with a little diascordium, nitre and vinegar. Whey, barley-water, or other di-

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luents, with syrup of lemon-juice and nitre, may be liberally drank.

4. External applications to the neck are likewise of considerable use; particularly anodyne and discutient cataplasms composed of chamomile-flowers, figs, saffron, anise-feed, fennel-feed, and linfeed-meal, boiled in milk; or the emplastrum commune, softened with oil of almonds, and mixed with saffron and camphor.

5. The injection of gargarisms by a syringe, where there is great pain and a dry heat, is not advisable. It is sufficient to wash the mouth occasionally with warm liquors, as milk, barley-water, decoction of figs or liquorice, mixed with syrup of mulberries, mucilage of quince-seeds, or nitre. A mixture of oil of almonds, with spermaceti, saffron, syrup of violets and barley-water, kept for some time in the mouth, is likewise of good service.

§ 3. *Practical Cautions and Observations.*

1. Venesection, which, in the inflammatory angina, with plethoric habits, is the first and most essential part of the cure, gives the greatest relief if performed in the jugulars. Where these cannot be opened, blood must first be taken from
the

the arm, and then from the veins under the tongue. In the inflammatory angina, happening in ardent fevers, and attended with danger of a phrenitis, where the strength is too weak to bear a copious detraction of blood, the sublinguals only are to be opened.

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2. When the disorder arises from an acrimonious caustic matter irritating the nervous coats of the fauces and larynx, and there is no manifest redundance of blood; scarification in the neck and chin, or the application of leeches, are sufficient. Scarification in the nape of the neck and scapulæ is likewise preferable to venesection in cacochymic and phlegmatic habits, where the fauces and external parts of the throat are inflamed from a redundance of viscid serum.

3. In all inflammations of the fauces attended with great pain and a burning heat, julep of roses with nitre and a little camphor, or jelly of hartshorn, clarified with whites of eggs, and mixed with lemon-juice and a little sugar, slowly and repeatedly swallowed down, are of great service. Where the fauces are dry and hot, the tongue swelled, and both respiration and deglutition difficult, anoint the neck and throat with camphorated oil, and give occasionally a linctus of whites of eggs two ounces, rose-

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water,

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water, fyryp of mulberries, each one ounce, nitre twelve grains; to which may be added twenty or thirty drops of the mineral anodyne liquor.

4. In the hot, latent, internal angina, whey is to be frequently drank, and the mouth occasionally washed with mixtures of milk, cream, nitre, and fyryp of wild poppies. In the symptomatic inflammations of the œsophagus, happening at the height of malignant fevers, a powder of one dram nitre, three grains camphor, and one ounce sugar, is to be taken with the common emulsion; and kept for some time in the mouth,

5. In danger of suffocation brought on by the acrid exhalations of quicklime, mercurials, metals, &c. purging and bleeding have no place: the most effectual remedies are moisteners and emollients, both internally and externally, milk with nitre, the cataplasms above described, and glysters.

6. The inflammatory pain which happens from an acrimony of the serum, in the glandulous flesh of the fauces about the pharynx, attended with a redness and copious flux of saliva, but no fever, is most successfully discussed by a gargarism of spirit of wine at the beginning, either

ther by itself, or along with nitre and camphor : eight or ten drops of the camphorated spirit, with one grain of nitre, are to be slowly taken into the fauces at a time.

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or
Quinsy.

7. Where there is a copious afflux of impure ferous humours to the palate and glands of the fauces, gentle laxatives of manna, rhubarb, and tartar, are to be several times repeated, and the mouth frequently washed with a mixture of cream of tartar and nitre, each twenty-four grains, burnt alum twelve grains, honey two drams, and water five ounces.

8. Emollient plasters are more convenient than cataplasms ; and bladders full of soft warm liquors are in some cases as serviceable as either. With regard to gargarisms, they should not be forced in by a syringe, lest the attrition increase the pain and inflammation : it is better and safer occasionally to wash the mouth with the liquor ; where this cannot be done, the injection should be performed very gently, and the head inclined forwards, lest some of the liquor, falling into the aspera arteria, endanger suffocation. It is advisable to abstain from speaking ; for frequent agitation of the tongue exasperates the complaint.

9. If

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9. If the tumour of the fauces tends to suppurate, the maturation may be promoted by fat figs. In inflammatory tumours of the tonsils filled with ichor, I have found nothing better than a mixture of honey of roses and spirit of vitriol applied frequently with a pencil; which cleanses and diminishes the swelling, liquefies the adhering mucus, and prevents a farther afflux. In the aphthæ of children, the pain and heat are best alleviated by frequently anointing the pustules with cream and a little nitre.

§ 4. *Histories of Cases.*

1. A woman of thirty, of a choleric disposition, and subject to catarrhus defluxions, after exposure to cold, in autumn, complained of a burning heat and pain of the throat, and a difficulty of swallowing or speaking; the pulse quick, especially in the night; the menses suppressed. Bleeding and a glyster gave no relief: gargarisms could not be borne. The tumour increased, both externally and internally, to such a degree, that she was almost strangled; but on the fifth day it subsided a little, and the pain abated. By ripening plasters, and emollient gargarisms, the tumour suppurated, broke while the patient was asleep, and almost suffocated her. To discuss the matter which had fallen on the lungs, hyssop-water

water was given with tinctures of castor and liquorice, some drops of succinated spirit of hartshorn, and warm infusions of pectoral plants: a sweat ensued all over the body, and a flux of tenacious viscid matter by stool, with gripes. The looseness being restrained, a singultus followed, with a burning heat all along the œsophagus, a spitting of viscid matter, and dejection of the strength. Pills of myrrh, scammony, calomel, saffron, castor, and salt of amber, brought back the diarrhœa; on which the symptoms abated, and the patient gradually recovered.

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or
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2. A man of sixty, subject to catarrhus de fluxions and weakness of the stomach, after travelling in a rainy night, complained of a disorder of the fauces, which prevented the swallowing of liquids without extreme difficulty, anxiety, and a copious secretion of phlegm, but allowed the deglutition of solids: the fauces looked somewhat reddish, but no swelling was to be seen. Camphorated spirit of wine applied externally, gargarisms of elder-flower water, with spirit of sal ammoniac and tincture of saffron, and laxative balsamic pills, removed the complaint in a few days.

This disorder seems to have been an inflammation of the epiglottis, by which it was prevented

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vented from exactly closing the larynx. Hence liquids were in part admitted into that canal, and occasioned great anxieties and disturbance, whilst solids, which compress the epiglottis more, passed over into the œsophagus.

3. A woman after salivation, was subject, from the slightest causes, to an exquisite heat and pain of the palate, and the internal parts of the fauces about the pharynx and larynx, with some difficulty of breathing, but no fever. After sleeping in a room newly plastered, she was seized with a headach, intense burning heat and pain of the fauces and neck, with restlessness, difficulty of respiration, anxiety and heat. An emollient cataplasin, a glyster of milk, nitre, common salt, honey and oil, milk and barley-water or ptisan, with nitre and syrup of violets, used as common drink, and frequently held in the mouth; soon removed the disorder; and a course of mineral waters with milk, and washing the fauces every morning with the aqua sclopetaria, or a decoction of plantane in wine, prevented its return.

4. A strong healthful man above fifty, who had never suffered venesection, after a violent fit of passion, was seized with an exquisite pain of the head; the face red, the eyes fierce, the arteries

arteries turgid, and beat so strongly, that he compared their pulsations to the strokes of a hammer. A poultice of crumb of bread, bay-berries, juniper-berries, and vinegar of roses, being applied to the affected part, and the coagulum aluminosum to the forehead and temples; he complained of a pungent pain in the fauces, and a difficulty of breathing and swallowing; the tongue was black, dry, surprisingly swelled, and hung out of the mouth; the pulse quick and vehement; he had a constant desire for liquids and from the difficulty of respiration, was obliged to sit always upright. By plentiful bleeding, acrid glysters, cataplasms, nitre and camphor given internally with simple waters, vinegar and oil of almonds, and an infusion of veronica, elder-flowers and liquorice used for common drink, the danger of suffocation was removed; after which, a laxative with nitrous and vitriolic gargarisms, completed the cure.

Angina,
or
Quinsy.

CHAPTER V.

Of the PHRENITIC FEVER.§ 1. *General History of the Phrenitic Fever.*

Part I.
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Chap. 5.

PHRENITIS consists in an acute fever with delirium, arising from an inflammation of the membranes of the brain.

Of this disease, the delirium which takes place is the most remarkable and alarming symptom. It is usually preceded by long continued watchfulness or disturbed sleep. At times it remits a little, and the patient appears composed, but remembers nothing of what passed during the paroxysm. The pulse is generally hard and small, the breathing deep and slow, the countenance fierce, the eyes staring and red, the face flushed, and the vessels of the head distended, the extremities are cold, the body restless, the urine thin and watery. Often blood drops from the nose, but without giving relief, unless the hæmorrhage be profuse.

Phrenitis

Phrenitis is rarely in these climates an original disease; but frequently in the southern ones, from exposure to the sun, immoderate watching, passion and fatigue of mind, debauchery and other causes.

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Fever, or
Phrenitis.

Among us, it accedes as a symptom to acute fevers of every kind. An abatement of thirst whilst the fever continues high, redness and tumidness of the face, strong pulsation of the temporal arteries, glossiness and wildness of the eyes, forgetfulness, constant watchfulness or turbulent sleep, prognosticate its approach.

Phrenitis is always dangerous, and if the inflammation be not removed in a few days, it either proves mortal or terminates in a mania. Green vomitings, white stools, a suppression or an involuntary ejection of the excrements, gnashing of the teeth, tremor, convulsions, constant alternations of rage, joy and fear, are frequent presages of death.

The true phrenitis is to be distinguished from the slighter alienations of mind, which happen in acute fevers without danger, and without any shivering or coldness of the extremities, or thin watery urine, and from the slighter disorders of the senses,

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senses, which sometimes continue several days or weeks after the decline of the fever, and which, as they arise from mere weakness of the brain, go off spontaneously, or yield readily to proper medicines as soon as the patient has recovered strength.

§ 2. *Method of Cure.*

The principal indications of cure are, to remove the accumulation of blood in the vessels of the head, and prevent its too copious afflux; to relax the parts, and open their obstructions.

Bleeding is most to be depended on, both for the cure and prevention: this remedy will be the more effectual, the more immediately the blood is taken from the part affected. The jugular veins are for this purpose the most eligible, nor is the opening them so dangerous or difficult as is generally supposed. The veins under the tongue are likewise proper, but have these disadvantages, that during the delirium they can scarce be conveniently opened, that too large an orifice is apt to occasion a dangerous or fatal hæmorrhage, and too small an one, not allowing a sufficient discharge, does little service. Some direct the frontal vein, and others

thers the temporal arteries to be opened : others scarify the whole head : but the Egyptian method of scarifying the nostrils, or, in want of the proper instrument for that purpose, exciting an hæmorrhage by forcing up a straw or slender sharp stick, is more advisable. If obstructions of the menses or lochia threaten a phrenitis, venesection is to be performed in the foot ; if a suppression of the hæmorrhoidal flux, leeches are to be applied to the hæmorrhoidal veins.

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Phrenitis.

A spontaneous flux of the belly has frequently carried off the disease, and an artificial one, after bleeding, is generally serviceable. The most proper laxative is a solution of four ounces of manna, one dram of cream of tartar, and half a dram of nitre, in a pint of whey, with one ounce of oil of almonds. If more immediate evacuation is necessary, recourse must be had to glysters.

The sick should drink plentifully of whey, or other agreeable diluents, occasionally acidulated with lemon-juice, or impregnated with nitre in the proportion of about a dram to a quart. Warm pediluvia, or wrapping the feet in moist warm cloths, or bathing the whole body in warm water, after proper evacuations, are of great advantage ; as is likewise an epithem of nitre, oil of rhodium, vinegar of roses, and a

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solution of camphor in spirit of roses, applied to the head.

§ 3. *Practical Cautions and Observations.*

1. The method of cure above prescribed is found, from experience, the most successful, both in the idiopathic and symptomatic phrenitis, particularly in that obstinate kind which degenerates into a mania: scarce any addition can be made to these directions, but they must be followed for a considerable time. With regard to regimen, every thing that may give disturbance or uneasiness, either to the body or mind, should be avoided: few attendants should be admitted, and those such as the patient has some respect for: the apartment should neither be moist, cold, nor too hot, and rather light than dark: the limbs are to be gently rubbed, and if necessary tied down.

2. If venesection is refused, which it frequently is, the most ready and effectual expedient is, to thrust a quill or straw unawares into the cavity of the nostrils. The frontal vein, if the disorder be idiopathic and chronical, is never to be opened till a proper quantity of blood has been previously taken from the arm or foot. Care must be had in this operation not to cut
through

through the vein, so as to wound the pericranium, which a too sharp lancet is in danger of doing.

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3. A phrenitis arising from menstrual and hæmorrhoidal obstructions, is most successfully treated by warm bathing, drinking mineral waters, and applying leeches to the veins of the anus and uterus. Phrenies of long duration have been happily removed by an eruption of the menses or hæmorrhoidal flux.

4. If the disorder arises not so much from an accumulation of blood, as from acrimonious humours, rendered more virulent by the exhibition of hot alexipharmics, or repelled from the external parts, as in exanthematous fevers, the viscera of animals, newly killed, are to be applied warm to the shaved head, and their heat occasionally renewed by dipping them in warm water.

5. In Poland, both a phrenitic and maniacal delirium frequently happen from a latent plica, and cease upon its eruption, which is promoted by washing the head twice a-day with a decoction of club-moss made in water, in the proportion of a handful to a quart.

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6. All stimulating medicines should be abstained from; as also opiates, especially where the strength is weak. Blisters likewise appear improper. BAGLIVI observes, that in deliria, with acute fevers and dryness of the tongue, marks of a high inflammation of the viscera, on the application of blisters all the symptoms increase, and the patient generally dies convulsed.

§ 4. *Histories of Cases.*

1. A man of forty, on the suppression, by opiates, of a flux which happened on the sixth day of an ardent fever; and being allowed wine, complained of an increase of the intense pain in the head, extreme anxiety of the præcordia, inflammation of the fauces and œsophagus, and large collections of viscid mucous matter in the mouth; soon after, he became furious, so as scarce to be kept in bed by four strong men. Venesection and a variety of remedies were used without effect: the phrenitis continued for five days without abatement, and then terminated in death.

2. In a total deficiency of the lochia, with great debility, burning heat, anxiety, and difficulty of breathing; myrrh with aromatics, and volatile salts, were taken. The anxieties increased,

fed, urine and stool were suppressed; and after constant watchfulness for six days, a glossiness of the eyes, and redness of the face, portended a delirium. In a little time, the woman grew furious, and ran abroad naked, insensible of the severity of the frost. A vein was opened in the foot; a dram of nitre, six grains of camphor, and the same quantity of theriaca coelestis, given at four doses; and a cephalic epithem applied to the temples. A calm sleep succeeded, from which the patient awaked languid and extremely weak: a profuse sweating continued for a week, during which time, a decoction of hartshorn with citron-juice was drunk liberally. By these means, this dangerous distemper was subdued, but a slow fever, kept up by customary irregularities, degenerated at length into a hectic, which, in the following autumn, carried her off.

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In this case, the warm medicines, taken at first to promote the lochia, were extremely improper. Bleeding, and nitre with castor, would have been the most effectual remedies.

3. A clergyman, in a fever attended from the beginning with constant watchfulness, restlessness, anxiety, intense thirst, and profuse sweats, was kept hot, and took warm medi-

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cines:

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cines : on the fifth day, exanthemata appeared, without the least relief. The same medicines were continued, with the interposition of nitre ; and on the ninth day, of a little opium, after which a delirium began. About ten ounces of blood being taken away on the eleventh, the patient slept ; but on awaking became extremely outrageous, and continued so till death closed the scene on the twentieth.

Alexipharmics and opiates were here entirely improper, and venesection too late.

4. A pleurisy, from menstrual obstructions, in a girl of seventeen, was joined by a phrenitis : the fever went off in a profuse hæmorrhage from the nose, but a disorder of the senses remained, the girl being sometimes dejected, sometimes furious, with frequent spasmodic tensions of the limbs. A course of purging, mineral waters with milk, and bathing in common water, was followed for a month ; after which, a decoction of barley, with nitre and sugar, was used liberally as common drink. In half a year, a complete cure was obtained.

5. A boy of fifteen, passionate, constantly engaged in quarrels with his school-fellows, complained, after being whipped, of loss of appetite
and

and sleep, and frightful dreams: on the seventh day, a high phrensy came on, with convulsive motions of the limbs. The patient was furious in the paroxysms, slept at times, had thin urine without any sediment, a quick, hard and unequal pulse, and some red pustules on the back and breast. Ptisans with milk and nitre being drank copiously, the fever and violent symptoms went off, but a disorder of mind and strong passions remained: these yielded to a course of mineral waters for a month, and bathing for a fortnight.

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Fever, or
Phrenitis.

CHAPTER VI.

Of PNEUMONIC INFLAMMATION.§ 1. *General History of Pneumonic Inflammation.*

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Chap. 6.

THE pneumonic fever is one of the acute inflammatory kind, arising from an obstruction of circulation in the blood-vessels of the lungs.

The pleurisy is an inflammation of the exterior membranous substance of the lungs, which is sometimes, but not always, communicated to the pleura. The pain is sharp and pungent, and confined to the side, the breathing short and difficult, the pulse hard and tense.

In the peripneumony the inflammation is seated deeper in the substance of the lungs, the pain is more dull, and extends to the back and scapulæ, the breathing more laborious, and the pulse soft.

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The spurious pleurisy is no other than a species of rheumatism, or an inflammation of the intercostal muscles. The breathing is but little affected, and the pain is increased by external pressure.

Pneum.
Inflam-
mation.

There are hardly any fevers in which crises are so regularly observed as in the true pleurisy and peripneumony. In young persons, and such as are of a moderately strong constitution, the matter expectorated by the cough generally appears bloody about the fourth day, and on the seventh day the disease goes off in a copious sweat. In persons of a phlegmatic and sluggish disposition, and where the disorder is seated deep in the lungs, the solution happens about the eleventh or fourteenth day, partly by spitting, and partly by sweat, the pulse growing softer, and a gentle refreshing sleep coming on. An imperfect sleep gives no relief. If the symptoms continue to the twenty-first day, there is danger of an abscess in the breast. A free expectoration from the bottom of the lungs, of a viscid matter on the fourth day, appearing bloody, and sometimes purulent, are favourable symptoms; the earlier and freer the spitting, the greater is the hope of recovery; but care must be had, when the disorder terminates in a copious expectoration of virulent matter, that a
phthisis

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phthisis or hectic does not succeed. Frequent loose stools are dangerous; but a looseness on the eleventh or twelfth day, if not too profuse, is not greatly to be feared; the purulent matter is thus sometimes evacuated. An hæmorrhage from the nose, about the fourth day, gives relief.

No inflammations are more apt to return than those of the lungs. Some, scarce recovered, have suffered a mortal relapse from irregularities in diet, particularly the immoderate use of strong wines. I have known four or more relapses in one year. A strict regimen therefore must constantly be observed after the cure.

Wherever inflammations of the lungs prove mortal, the patient dies suffocated, from a deficiency of expectoration. On dissection, the lungs are found inflated, their vessels distended with thick tenacious blood, hard, like the liver, and so heavy as to sink in water. Sometimes they are covered with small abscesses, and hard tubercles; and the pleura inflamed and sphacelated. Sometimes likewise polypous concretions are found in the pulmonary vein and the arteria magna; which having obstructed the free course of the blood through the lungs, occasioned its accumulation, and the inflammation of the part.

§ 2. *Method of Cure.*

The cure is to be effected by copious and early bleeding, diluents, small doses of nitre and alexiterial juleps, with vinegar, and oily lohochs, with a little saffron for promoting expectoration. If the disease is of the low malignant kind, half a grain of camphor may be added to the antiphlogistics.

§ 3. *Practical Cautions and Observations.*

1. The cure depends principally upon bleeding, which gives the greater relief the earlier it is performed. The blood should be drawn from the arm of the affected side: the quantity, and repetitions, are to be determined by the strength and habit of the patient; if too much be taken away, the expectoration will be impeded, the obstruction confirmed, and a sphacelus apt to ensue; if too little, the patient finds no relief, and the disease is apt to increase.

2. Diluents, as whey or barley-water, with a little honey, are of great advantage: the more liquid the patient drinks, the better, especially if the body sweats much. Cold liquors, and too great heat, are to be equally avoided.

3. Avoid

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3. Avoid all those medicines which strongly promote urine, stool, or sweat; lest the thin lymphatic humours, by whose assistance the stagnant blood is to be resolved, be drained off. The belly must not be loose, lest the spitting and strength fail; nor yet costive, which would increase the fever. Two or three spontaneous loose stools are not to be prohibited, but costiveness must be early provided against by glysters.

4. Opiates are generally recommended for alleviating the pain. In young persons, where the pain is extremely violent, slight opiates may be allowed, in conjunction with nitre and diaphoretics: but in an advanced age, where the juices are thick, and where the inflammation is lodged deep, they fix and prevent the expectoration of the humours, and weaken the strength.

5. The pain is greatly abated, the rigid fibres relaxed, the breathing rendered more free, and the matter prepared for expectoration, by keeping a bladder full of warm liquor almost constantly upon the part affected. Fomenting the pained part with a solution of camphor half a dram, in oil of almonds one ounce, is likewise of good service.

6. Expectorants and sweets are not to be given on the first days, nor till the matter is concoct-
ed

ed and rendered fit for expectoration ; otherwise they occasion a greater afflux of humours to the lungs. Some direct spermaceti to be taken in large quantity for dissolving the blood ; but, on account of the nausea which it excites, it generally does more harm than good ; nor is its dissolving power so great as that of vinegar mixed with crabs-eyes.

Pneum.
Inflam-
mation.

§ 4. *Histories of Cases.*

1. A boy about sixteen, after omitting for a year cupping and scarification, which for some time before had been performed almost every month, was seized with a shivering, weariness, pain in the breast, difficulty of breathing, prostration of the appetite and strength, preternatural heat, a quick, hard, and unequal pulse, and turbulent sleep. Various pectorals were given internally, without effect : all the symptoms increased, till on the seventh day he expired.

The lungs were found prodigiously inflated, so as to fill almost the whole cavity ; firmly adhering to the diaphragm and pleura on both sides ; hard, like flesh ; ponderous, so as to sink in water ; containing a little putrid bloody ichor, but no pus. In the pulmonary vessels were large polypous concretions ; which seemed to have been

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been the cause of the disease, and whose ill consequences might probably have been prevented by venesection.

2. A gentleman about twenty, of a spongy habit and full of blood, subject in infancy to frequent bleedings at the nose, recovered some months from an obstinate quartan, was seized in spring, after great irregularities, with a true pleurisy. A purgative given at the beginning, occasioned a few stools, and considerable weakness. A vein being opened, the blood proved very fizy, black, and covered with a tenacious matter. The difficulty of breathing continued so great, that he was obliged to sit constantly upright; the pulse hard, small, and quick; the cough perpetual, the sputum in some degree bloody, and thrown up with exquisite pungent pain. On the fifth day, a bladder of warm liquor was applied to the affected side; nitrous medicines, with solution of crabs-eyes in vinegar, given in frequent small doses; and a warm infusion of veronica, elder-flowers, liquorice, and fennel-seeds, used for drink. On the seventh day, an hæmorrhage from the nose, followed by an universal sweat, proved a complete solution. The same disorder returned almost every year afterwards, till a phthisis carried him off in the thirtieth.

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3. A nobleman of a robust corpulent habit, good appetite, and long accustomed to hard foods, from cold, and eating pulse, was seized with a colic, which continued very severe for a day and night. Carminative draughts and hot effences being given, a great difficulty of breathing supervened on the third day, with a fever, restlessness, a tense and pungent pain striking from the breast to the back. A vein was opened, and a decoction of manna with some grains of emetic tartar exhibited, by which the stomach and intestines were plentifully unloaded, but the anxiety and difficulty of respiration increased. Resolvent pectoral mixtures were subjoined; on the sixth day, a vein was opened again; and on the seventh, the manna was repeated, without relief; nor were cataplasms, applied to the breast, of any service. At length mineral waters were drank in considerable quantity, till, on the eleventh day, the patient died of suffocation.

Pneum.
Inflam-
mation.

In robust plethoric persons, especially when advanced in years, a peripneumony is no uncommon consequence of a simple colic, which might have been easily discussed by glysters and other proper remedies. The purging and vomiting, and drinking cold liquor at the height of the fever, could not but do harm. The author of this disease was the person who became famous
for

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gave little relief, but rather increased the weakness. On the eleventh day, a profuse sweat broke out suddenly all over the body; after which, he fell into a deep sleep, and awaked much refreshed: the spitting and flux, with a gentle moisture on the skin, continued for some days, and by degrees he recovered.

CHAP.

CHAPTER VII.

Of the INFLAMMATION of the LIVER.§ 1. *General History of the Inflammation of the Liver.*

THE inflammation of the liver, commonly called the *febris hepatica*, or *hepatitis*, is attended with a sharp pain in the part, frequently extending to the shoulders, and increased upon external pressure. It is accompanied with great difficulty of breathing, and generally an acute fever. This disorder is no other than a species of rheumatic fever, only the exterior membranes and ligaments of the liver, by which it is connected to the false ribs and diaphragm, are usually affected. The internal substance of the liver, which, from the want of nerves, is of no great sensibility, is rarely found inflamed, though frequently, from translations of matter, it is found to be imposthumated, corrupted or mortified.

Inflamm.
of the
Liver.

The hepatitis and spurious pleurisy are sometimes complicated together; and, when distinct,

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they have many symptoms in common; such as a sharp pain in the side, reaching often also to the neck and shoulders, a difficulty of breathing, and a dry cough. They are easily distinguished by the pain being in the pleurisy chiefly about the true ribs; in the hepatitis, about the false ribs; in the former, the patient can lie on the left side, in the latter, he cannot, the weight of the liver, in this situation, irritating the inflamed ligaments.

The hepatitis is likewise to be carefully distinguished from those fixed and burning pains about the pit of the stomach towards the right side, often accompanied with a vomiting and singultus, which arise from a calculus in the ductus cysticus, or choledochus: from the pains in the right side, to which hypochondriacal persons are subject, whose seat is in the flexure of the colon, and which are not attended with any fever: and from the tumour of the right hypochondre, occasioned by an inflammation of the abdominal muscles, particularly the transverse ones, which are strongly connected with the peritoneum about the region of the liver; in this case there is little fever, and no cough or vomiting, which commonly accompany the hepatitis; the manifest tumour and tension of the skin discover the muscles to be affected.

The

The hepatitis, properly treated, rarely proves mortal, provided the viscera are sound : it generally goes off, in seven or eleven days, in a copious sweat. But if, from imprudent management, the pain and inflammation continue long, a slow fever comes on, with a wasting of the body, loss of strength and appetite, dryness of the mouth, and white thin urine ; marks that an abscess is now formed in the liver.

Inflamm.
of the
Liver.

§ 2. *Method of Cure, with Practical Cautions and Observations.*

1. The cure is to be effected by diluents with nitre ; and keeping up a constant gentle diaphoresis, with a mixture of spiritus nitri dulcis and volatile spirits or camphor. The belly, if bound, is to be opened by glysters, and gentle laxative potions ; and bladders full of warm liquor applied to the part affected.

2. Opiates, the warm sudorifics, and a hot regimen, must be avoided. Opium generally occasions laborious and uneasy sleep, with frightful dreams, anxiety and inquietude.

3. Unctuous, saturnine, and spiritous applications are improper : the first obstruct the pores of the skin, the second cool and constrict too

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much, and the third render the fibres more rigid. Even camphorated spirit of wine, though strongly commended, has no place, unless where nature is low, and before the accession or during the remission of the intense febrile heat.

4. Venesection at the beginning is of great advantage for preventing the increase of the inflammation. The blood should be drawn from the arm, or foot, of the affected side; and the evacuation repeated according to the urgency of the symptoms, and the strength of the patient.

5. If the spasm in the inflamed part is so violent as to affect, by consent, the stomach, duodenum, and the biliary ducts, which may be judged of from an anxiety of the præcordia, vomiting, hiccup and costiveness; oily glysters are to be injected, bladders of warm liquor applied to the parts affected, and diaphoretic mixtures, with nitre and the mineral anodyne liquor, exhibited internally.

6. If the disorder be complicated with obstructions of the liver, and if symptoms of the jaundice arise from thence; epithems of wormwood, chamomile-flowers, cummin-seed, &c. boiled in wine, are to be repeatedly applied. The same epithems are likewise serviceable in the decline, for preventing an abscess.

Inflamm.
of the
Liver.

§ 3. *Histories of Cases.*

1. An officer of the army, aged sixty, of an irregular life, after a fall from a horse, complained for some weeks of a sharp pain in the right hypochondre, with a fever, difficulty of breathing and costiveness. These symptoms were relieved; but a dull pain remained for a year, with a weakness of strength and appetite. On riding, he perceived as it were a sense of internal rupture; on which the pain ceased all at once, and an extreme languor, difficulty of breathing, and constriction of the præcordia succeeded. A vein was opened, but scarce any blood came: analeptics were given in vain: in a few hours he expired. After death, the belly swelled surprisingly, and next day burst, discharging a putrid sanies, which filled the whole house with a cadaverous stench.

2. A man of thirty-six, had a pain in the right hypochondre for near a year, to which acceded a slow fever, great wasting, and yellow colour of the whole body: the hypochondre was hard and somewhat swelled, the abdominal muscles extenuated, the urine thin and fiery, the mouth dry, the belly sometimes loose, sometimes bound, with loathing of food, and unquenchable

S 4

thirst,

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thirst. An incision being made, a purulent matter was discharged, so fetid as to infect the whole house, and render the room almost insupportable. Soon after, he expired.

3. A man of thirty, of a sedentary life, complained of extreme languor of the whole body, great propensity to anger, and a bitter taste in the mouth. About a month after, he was seized with a pain in the right leg and hypochondre, which was increased by pressure; he was also affected with loathing of food, restlessness, turbulent sleep, and preternatural heat: the extremities quickly grew cold from cool air; the colour of the face frequently changed; the belly was loose; nitrous powders procured large fetid bilious stools; the urine thick and red, with a sediment; the pain increased after stools, laughing or breathing deep. Some blood was drawn, and diaphoretics exhibited: on the seventh day, the skin, before arid, became moist, and a copious sweat proved a solution of the disorder.

CHAPTER VIII.

Of the NEPHRITIC FEVER.§ 1. *General History of the Nephritic Fever.*

NEPHRITIS is a fever from an inflammation of the kidneys; with a fixed burning pain in the loins, a difficulty of passing urine, and other spasmodic complaints in the lower belly.

Nephritic
Fever, or
Nephritis.

The slighter inflammations, though attended with great pain and heat, soon yield to proper medicines with a diaphoretic regimen. The more violent are of longer duration: if the pain continue till the fourteenth day, a suppuration happens, and then the pain abates, and the urine, before thin and watery, becomes thick and high coloured, and deposits a gross sediment, composed partly of purulent, and partly of mucous matter. Sometimes the inflammation is lodged so deep, that the exulceration which follows it continues for several years, successively consuming the whole substance of the kidneys, till at length

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length the patient dies of a tabes and hectic fever: on dissection, instead of a kidney, only a bag of pus is found. If the pus escapes, and falls into the cavity of the pelvis, it occasions, before death, intolerable pains, and a retention of urine; the bladder, a part of exquisite sensation, being corroded and convulsed by the incumbent pus.

A very violent nephritic fever arises from a calculus, not whilst lodged in the kidneys, for there it occasions no inconvenience, but in its passage from thence along the ureters: the pain which it excites in these extremely sensible parts, does not abate till the stone has arrived in the bladder. The calculous nephritis rarely happens, without being preceded by a simple inflammatory or purulent one, this generally laying the foundation of the other: the urine extravasated, and stagnating, or mingling with the pus, gradually deposits earthy *moleculæ*, which coalescing form the calculus.

§ 2. *Method of Cure, with Practical Cautions and Observations.*

1. In the slighter cases arising from cold, nothing farther is necessary than to apply warm clothes to the back, belly and feet; and to drink
liberally

liberally of warm liquors, for promoting a diaphoresis. If the belly be much bound, a glyster of milk, oil, honey and nitre, is to be injected.

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2. If the fixed burning pain continue, and thus discovers that the renal vessels are obstructed and distended with fizy blood; the plethora must be speedily diminished by venesection in the foot; or in persons disposed to the hæmorrhoidal flux, by applying leeches to the veins of the anus. After these evacuations, antiphlogistics, diluents and diaphoretics take place.

3. If a dysury and purulent matter in the urine, shew that an abscess is formed; the indications are, to obtund the acrimony of the pus, and deterge and heal the parts. These intentions are answered by milk and whey, glutinous liquors, infusions of the vulnerary plants sweetened with honey, and rob of juniper-berries dissolved in Malvatic wine.

4. The greatest relief, both in the inflammatory and calculous nephritis, is to be expected from soft glysters of milk, whey, or a decoction of chamomile and elder-flowers, with an ounce or two of syrup of marshmallows, and a dram of nitre. The glysters should be retained a considerable time, that they may relax the parts, and procure an exit for flatulencies.

5. As

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5. As inflations of the colon, by compressing the left kidney, dispose to and exasperate nephritic complaints, all flatulent substances should be avoided, carminatives given occasionally, and the belly kept open.

6. With regard to externals, unctuous liniments, camphorated spirit of wine, bathing, are not advisable whilst the fever and acute pain continue: a bladder half full of warm water will be of greater service. Where there is suspicion of an exulceration after the fever, great benefit has been received from plasters containing sugar of lead and camphor.

7. Mineral waters are of service in all disorders of the kidneys; but the stronger ones, whether cathartic or chalybeate, are to be used with circumspection. Those of Seltzer are the most advisable; which, for cleansing the exulcerated parts, should be drank for a fortnight alone, and afterwards for a month with milk, with the interposition of traumatica.

§ 3. *Histories of Cases.*

1. Her serene Highness ———, near sixty, of a soft and sanguine constitution, who for some years had drunk nothing but wine and aquavitæ,

aquavitæ, after being greatly heated by exercise, complained of a pain of the back and left hypochondre, with shivering and chilness, a fever, restlessness, anxiety, constipation of the belly, a fixed pain of the left kidney, remitting a little at times, but always increasing towards night, during which the urine was pale and thin. These symptoms continued till the eleventh day, when the pain abated, and the urine became extremely turbid, and deposited a copious brown sediment. The principal medicines made use of, were soft cooling emulsions, mild diaphoretic nitrous powders, and oil of almonds, with emollient fomentations and camphorated ointments. To prevent farther exulceration, and promote the consolidation of the parts, infusions of the vulnerary herbs were drank with milk for a month, and the Seltzer waters next spring.

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2. A man of twenty-eight, full of blood, of a family subject to calculous disorders, fell into a high fever with a violent pain in the left kidney, and spasmodic contraction of the left leg; he was also affected with gripes, costiveness, eructations, and difficulty of making urine, which deposited a white sediment. Some blood was taken away, emulsions exhibited with nitre and syrup of poppies, a bladder of warm liquor applied to the pained part, and a glyster of whey, oil of almonds, syrup of marshmallows
and

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and nitre, injected every three hours. By this means, the belly was opened, the troublesome flatulencies intercepted, and the gripes abated; but a calculus fell down into the ureter, with exquisite pain; to abate which, and promote its descent into the bladder, the anodyne liquor was given with liquid laudanum. The stone was extracted, and the patient has been free from calculous complaints for some years; but the meatus urinarius having been hurt in the operation, and contracted in healing, a difficulty of passing urine remains. An infusion of milfoil, and the Seltzer waters, with wine, and a powder of magnesia and nitre, were used by way of prevention.

As not only a high fever, but gripes and constipation of the belly, vomitings and eructations, are joined to calculous pains, there is no disorder whose diagnostics are more uncertain. I have known it mistaken for an ardent fever, the iliac-passion, a convulsive colic, and an hæmorrhoidal and flatulent colic. The mistake however is of the less consequence, as all are to be treated nearly in the same manner, by emollients, anodynes, and such medicines as may relax the rigid fibres, and abate spasms.

3. A woman about forty, full of blood and juices, after omitting customary venesection, indulging

dulging in full diet and a sedentary life, the menses sparing, was seized with a fixed pain in the left lumbar region, which continued some days, with a prostration of the strength, nausea and costiveness. Opiates obtunded the pain, but increased the constipation, anxiety and difficulty of breathing; the urine was suppressed, the belly became hard and tense, and a fever acceded. Emollient decoctions, with senna and rhubarb, and a little spirit of nitre for abating thirst, were now exhibited in vain: shiverings came on, with internal heat, faintings, and a slight delirium: three grains of emetic tartar procured no evacuation, and in two hours after taking it she expired.

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This disorder was most imprudently treated. It would in all probability have yielded to early bleeding and glysters.

4. A merchant of forty, of a choleric and sanguine temperament, after deferring autumnal bleeding longer than usual, and travelling in a chariot in cold weather; complained of shivering, followed by heat, a most acute pain in the left side above the os ischium towards the backbone, with costiveness, restlessness, thirst, stricture of the præcordia, flatulencies, and thin watery urine. Oily glysters and draughts alleviated

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viated the pain: purging pills given afterwards, operated with gripes, increased the pain in the kidney, restlessness and heat; every thing taken into the stomach was thrown up, and the belly became again strongly constipated. Some blood was taken away, a paregoric glyster with nitre injected, the mineral anodyne liquor and nitrous powders exhibited alternately, and water-gruel with oil of almonds, and broth with citron-juice, used for drink: the heat, vomiting and pain abated; but the latter returned at times, particularly in the evenings. The affected part was fomented with emollient ointments and oil of juniper, and an alkalized nitrous liquor taken twice a-day: on the seventh day, the belly answered spontaneously, the skin became moist, the pulse soft, the urine turbid with a sediment, and the pain went entirely off. Some time after, on taking a saline purgative, a small calculus was voided with the urine.

5. A nobleman about forty, of a good constitution, full of blood, subject twice a-year to a slight hæmorrhoidal flux, was seized with an intense pain of the back and belly, so that he could not stand upright, with a frequent stimulus to urine, but small discharge. A vein was opened in the foot several times, and an antispasmodic powder and balsamic aloetic pills exhibited, with

a view to promote the hæmorrhoidal evacuation. The pain continued, returning periodically, chiefly in the lumbar region, often with a coldness of the extremities, followed by an universal heat. On drinking the Caroline waters, he grew easier, and voided in a few weeks not less than four hundred smooth calculi of different sizes. During this time, the pain was mild; but returned pretty severe in his journey home, and did not entirely go off till a year after, when vulnerary infusions, the mineral anodyne liquor, and the Toeplitz baths, made a complete cure.

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CHAPTER IX.

Of the INFLAMMATION of the BLADDER.§ 1. *General History of the Inflammation of the Bladder.*

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CYSTITIS, or inflammation of the bladder, is attended with an acute, burning, compressive pain in the region of the pubes, a fever, tenesmus, and constant stimulus to urine.

Inflammations of the bladder are always dangerous, and, unless early disscussed, mortal. Sometimes they terminate at once in a gangrene: sometimes in a suppuration of the part; in which case, life is protracted for a time, but either a fatal hectic ensues, or the corruption spreads to the rectum, and induces a mortification.

§ 2. *Method of Cure.*

No diseases are more difficult of cure than those which happen in the bladder, a part of exquisite

quisite sensation, furnished with but little blood, and constantly washed by urine, which prevents consolidation. We are therefore to endeavour to prevent or remove them at the beginning.

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If a suppression of the menstrual or hæmorrhoidal flux threaten a disorder of the bladder, the evacuation must either be brought back, or supplied by plentiful artificial bleeding, especially in the foot. If the healing up of old ulcers in scorbutic persons, the repulsion of exanthematous matter, or an impurity of the blood and juices be the cause, give diluents, obtunders of acrimony, gentle diaphoretics, and purifiers of the blood.

After the spasm and inflammation have come on, besides the remedies already mentioned, the mineral anodyne liquor is to be given with extract of saffron and a little camphor, the nitre in the diaphoretic powders increased, and external means employed for relaxing the parts. Where a simple spasm of the bladder occasions a tenesmus, or difficulty and pain in discharging urine, warm bathing, and the steam of warm water received through a perforated stool, are the most effectual remedies.

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§ 3. *Practical Cautions and Observations.*

1. Nothing is of greater service in the inveterate disorders of the bladder, so common to cachectic, scorbutic, hypochondriacal, and aged people, than the continued use of mineral waters, which should be taken at meals as common drink, with one-fourth their quantity of Moselle wine.

2. Milk by itself is not well adapted to disorders of the bladder. But drinking milk with the purging waters, or rather taking these waters by themselves for some weeks, to cleanse away the sanious and mucous matter, and then subjoining milk, either alone, or mixed with the waters, is of greater service than any other remedy whatever. Asses milk is the most proper.

3. Though bleeding is serviceable, both for the prevention and cure of inflammations from an accumulation of blood; yet, where the blood is rather impure than redundant, frequent venesection does harm: though it seems at first to relieve the pain, perspiration is diminished, and the disease confirmed.

4. Sweet wines, as Spanish or Hungarian, are allowable, for corroborating the stomach, and recruiting

recruiting the strength, provided a heat or fever do not contraindicate. Acidulous wines, as Rhenish, are improper.

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of the
Bladder.

5. Exposure to cold, drinking cold liquors, too cooling, acid and nitrous medicines, are to be studiously avoided, especially by aged people. Moderate exercise, warm liquors, warm baths and pediluvia, greatly mitigate the pain. Even the mineral waters should be drunk somewhat warm.

§ 4. *Histories of Cases.*

1. A man of forty, of a sedentary life and immoderate study, was afflicted at times with an intolerable pain about the region of the pubes and perineum, and difficulty of urining. The fits lasted sometimes for several weeks, with extreme restlessness, watchfulness, anxieties, loss of strength, a tremor and coldness of the extremities; the urine was generally in small quantity and turbid, and deposited a thick sediment. By frequent returns of the disorder for near six years, the strength was at length entirely exhausted, and he expired. The cause was judged by all to be a calculus and ulceration of the bladder; but, on dissection, there was not the least mark of either: the substance of the blad-

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der was much thicker and firmer than in its natural state, and full of blood-vessels greatly distended, some as large as a goose-quill.

2. A man of forty, after changing an unsettled active life for a sedentary one, had an hæmorrhoidal flux ; which being suppressed, a discharge of bloody urine returned almost every month ; and on the cessation of this, anxieties of the præcordia, pains of the loins, rumbling of the belly, indigestion, and loss of appetite, ensued. For the removal of these complaints, various remedies were employed, without effect. An inflammation of the bladder came on, distinguishable by a burning heat and pain in the region of the pubes, a difficulty of urining, fever, anxieties, and delirium ; under which he expired. On dissection, the bladder was found inflamed and sphacelated.

3. A clergyman, of a sedentary life, subjected to perpetual fatigue of mind, and of an impure habit, was seized at times with a violent dysury, and a spurious palsy of the right hand : whilst the palsy continued, the dysury was easier ; but as one remitted, the other increased. These complaints seemed at length to have yielded ; but, on exposure to cold, intolerable pains in urining returned, followed by an inflammation and ulceration

tion of the bladder, and an acute exanthematous fever, which carried him off.

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Bladder.

4. A man of eighty had for some years an extreme difficulty and pain in making water, which eluded the most powerful medicines. At length an erysipelas in the feet left a running sanious ulcer, which proved a complete solution both of the dysury and pain in the pubes.

5. A woman about forty, of a sanguine constitution and sedentary life, after omitting customary venesection for two years, and an obstruction of the menses, was seized with exquisite pains about the region of the pubes, extreme anxieties of the præcordia, obstinate constipation of the belly, and prostration of the appetite and strength. Opiates in some measure alleviated the pain, but brought on a syncope and increase of the anxieties, which were followed by a delirium and death. On dissection, both the bladder and uterus were found inflamed and sphacelated, the other parts sound.

In all inflammations of nervous and membranous parts, as the phrenitis, pleurisy, hepatitis, inflammations of the stomach, intestines and bladder, nothing is more pernicious than opiates; which, by stupefying the part, and totally
T 4 obstructing

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obstructing the motion of the blood through the small vessels, bring on a gangrene. The proper remedies are, bleeding, diluents, discutients, small repeated doses of the mineral anodyne liquor mixed with volatile spirits, and a temperate diaphoretic regimen.

CHAP.

CHAPTER X.

Of the INFLAMMATION of the UTERUS.§ 1. *General History of the Inflammation of the Uterus.*

THE inflammation of the uterus, or hysteritis, is distinguished by a fixed pain and burning heat in the groin, with an acute fever, pain of the loins and lower belly, inflation of the abdomen, stimulus to stool and urine, a difficulty and heat in passing urine, and violent disorders of the head, breast, præcordia and stomach.

Inflamm.
of the
Uterus.

The seat of the pain, and some of the other symptoms, vary according to the part of the uterus affected. If the whole be inflamed, a violent pulsatory motion is perceived all over its extent: if only the back part, the pain is felt about the loins, and the belly is bound, from the compression of the rectum: if the fore part, the pain is about the pubes, and the urine is obstructed, from the compression of the bladder: if the sides, the inguina are distended, and a weight

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weight is perceived in the legs: if the fundus, the pain is chiefly towards the navel, accompanied with a swelling.

External injuries, suppressions of the uterine evacuations, exposure of the abdomen whilst hot to sudden cold, especially during the menstrual flux, dispose to this disease. Women of exquisite sensation, a passionate temper, and costive habit, if the purgations after delivery do not succeed regularly, are extremely subject to it: painful strictures are felt in the abdomen, with a stimulus to urine, and a pain in voiding it, the feet become cold, the face red and swelled, the eyes shining, sometimes a little blood drops from the nose, the mind is restless, the patient gets no sleep, or is disturbed by frightful dreams, an extreme difficulty of respiration, faintings, convulsions, and a high delirium come on.

The slighter inflammations of the uterus generally yield to proper medicines in a few days. The more violent terminate about the seventh, ninth, or eleventh day, either in a suppuration or mortification of the part; which last is usually preceded or accompanied by white miliary eruptions on the skin. Child-bed women are most subject both to the slighter and to the gangrenous

grenous inflammation. In others, particularly those who are full of blood, and of a soft spongy habit, who have frequently exposed the lower parts whilst heated to cold, omitted customary venesection, and indulged in an inactive life in old age, anguish of mind, venereal desires, and unwholesome foods; the inflammation more commonly suppurates. Suppurations however generally end at last in a gangrene; though sometimes an apostemation in the uterus has discharged a large quantity of white sanies, and the patient recovered.

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If the exterior part of the uterus be inflamed, from external cold, a scirrhus is apt to succeed, which ulcerating forms an incurable cancer. Sometimes likewise the glands about the neck of the uterus, particularly about the internal orifice, become scirrhus, and at length are affected with an ulcerous inflammation, which yields as little to medicine as the true cancer.

§ 2. *Method of Cure.*

As this disease is most common to child-bed women, and so dangerous and difficult of cure when formed, all possible means ought to be used for its prevention. Its principal causes are violence in parturition, and a deficiency of the lochia.

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lochia. After delivery therefore, rest and quietness are to be directed, with a mild diaphoretic regimen, diluents, and medicines which gently abate heat and spasmodic strictures, as nitre; to which, if hysterical symptoms appear, a little castor may be added. Half an ounce, or an ounce of oil of almonds, may be given every day, either alone, or with one-fourth its quantity of spermaceti, in chicken-broth or water-gruel; and the belly anointed externally with a mixture of two or three ounces of expressed oil, and two or three drams of the essential oil of caraway-seeds, or with the oleum camphoratum. The patient being by these means composed, proceed to the promotion of the lochia; for which purpose, nothing is more effectual than pills composed of bitter extracts, with mild gummy resins and aloes: fifteen grains of a composition of this kind may be given every morning and evening, and continued, according to the exigency of the case, for six or eight days.

If, notwithstanding these remedies, a continual fever comes on, the lochia are retained, the belly distended by flatulencies, and spasms arise, extending towards the upper parts; the redundant blood must be evacuated by venesection in the foot. The French are too liberal in the use of this remedy; but the Germans too sparing,
many

many women being carried off by an inflammatory fever of the uterus, who might have been saved by early bleeding. After venesection, give every two hours two or three spoonfuls of a mixture of alexiterial waters, distilled vinegar, crabs-eyes, diaphoretic antimony, and a little dulcified spirit of nitre or mineral anodyne liquor: chicken-broth, with a little orange-juice, may be used for common drink; infusions of veronica and other like herbs, as tea; nitrous powders and balsamic aloetic pills occasionally interposed; and the belly kept open by glysters of whey, or decoction of chamomile-flowers, with nitre, honey and oil.

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of the
Uterus.

In inflammations not arising from child-birth, and affecting not so much the fundus of the uterus as the neck and vagina, besides the remedies above recommended, externals are to be called in aid; as epithems of the spiritous alexiterial water, tincture of saffron, camphorated spirit of wine, nitre and vinegar, to be applied frequently with double linen cloths; and injections of asses milk, boiled with nitre, saffron and myrrh. The tenesmus, one of the most troublesome symptoms in this disorder, is relieved by the steam of warm water, and glysters with oil of almonds and a little extract of saffron. The same remedies are proper where the inflammation suppurates.

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Inflammations of the uterus from an imprudent suppression of the fluor albus, are very difficult of cure. If the disorder be chronical, the medicines chiefly to be depended on are, warm bathing, the steams of warm water impregnated with aromatic herbs, asses milk and whey, and the occasional use of balsamic aloetic pills.

Inflammations from external injuries require early and repeated bleeding, first in the arm, and afterwards in the foot. The belly must be kept open by glysters, which in all uterine disorders are of great utility. Gentle diaphoretics and discutients are to be given internally; and an emollient plaster, with ammoniacum, saffron and camphor, applied externally.

§ 3. *Practical Cautions and Observations.*

1. As many child-bed women are carried off by this disorder, it is advisable to guard against it during gestation, by seasonable bleeding, laxatives of rhubarb, and regularity in the non-naturals. Pregnant women are to be earnestly cautioned against spiritous aromatic liquors and forcing medicines, for promoting delivery, and to use in their place bleeding in the foot, and warm bathing, two or three weeks before the period.

2. Violent

2. Violent passions are in no disorder more dangerous than in this : nor is cold received in the inguina and abdomen in any case of worse consequence than after child-birth and abortion.

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3. The stronger forcing medicines, saffron, myrrh, amber, aloetics, warm aromatics, saline stimulants, should never be given where the lochia are suppressed ; for these augment the fever and spasm, and constrict the passages. When the spasm begins to abate, the pains to remit, and the blood to flow, the discharge may be safely promoted by the milder expellents, as tinctures of amber, myrrh, rhubarb, saffron, made, not in spiritous liquors, but in aqueous ones, impregnated with alkaline salt : these liquors should be given in small doses, but frequently repeated.

4. Bleeding is likewise one of the principal means for promoting the lochia ; from which we are not to be deterred by the violence of the symptoms, or even by miliary eruptions. But if nature supplies the deficiency of this discharge, by a copious sweat or flux of the belly, all the means of promoting it are to be abstained from.

5. The flux of a viscid, yellow, and bloody humour from the uterus, portends an approaching

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ing ulceration; to prevent or remove which, frequent purging with rhubarb, tamarinds and manna, is principally necessary. If an ulcer remains, decoctions of the woods, with a diaphoretic regimen, are to be continued for three weeks or longer.

6. Cancerous ulcers, attended with a discharge of putrid sanies, and part of the substance of the uterus corrupted, are almost incurable. If there be any hopes of a cure, asses milk, the milder mineral waters, and bathing every morning and evening for an hour or longer, in warm water with bran, are the most likely to succeed.

7. In all abscesses and ulcerations of the womb, astringents and repellents are to be cautiously used, as being apt to bring on a scirrhus. Goats milk, elder-flower water, with saffron and red beet-juice, are the best injections.

8. Cancers of the uterus are often accompanied with violent pains, which bring the patient extremely low, and entirely prevent rest and sleep. In these cases, recourse must be had to opium; which it has sometimes been necessary to give every night, to the quantity of two or three grains, for several months together.

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§ 4. *Histories of Cases.*

1. A woman of sixty-six, thin and passionate, had a profuse uterine hæmorrhage for some months; which being at length suppressed by hot, acrid, astringent and aluminous applications, intense pains succeeded, and soon after a sanious fetid discharge, with a slow fever, a wasting of the body, and great weakness. Opiates somewhat alleviated the intolerable pain, which always returned again upon omitting them: as often as the fetid matter was retained, rumblings in the belly, flatulent spasms, hystERIC affections, cardialgiæ, and anxieties of the præcordia, ensued. In this manner she dragged on life for two years, and then sunk under the fever and emaciation.

2. A woman of forty, full of blood, in the fourth month of pregnancy took an antimonial preparation, from which she vomited upwards of twenty times, and was extremely weakened. From this time she always ailed, and about a fortnight after miscarried. The abortion was preceded by a most violent pain in the groin, which continued for some months, with a quick pulse, slight faintings at times, and sometimes a cough and pain of the joints. At length a tu-

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mour arose on the abdomen, with constant pungent pain and a flux of the belly, followed by a prostration of the strength, coldness of the extremities, difficulty of breathing, and frequent faintings, under which she expired. On dissection, some pounds of pus were found in the cavity of the abdomen; the uterus spongy, greatly enlarged, with numerous lacunæ from which the pus had proceeded; the adjoining intestines were eroded; in the larger blood-vessels, no blood was found, that fluid being almost wholly changed into the matter of pus.

3. A woman of thirty-seven, who from a hard labour twelve years before, had always felt some pain in menstruation, fell into a river during the flux, which instantly stopt: various spasmodic and hysteric affections ensued, and after some months the whole body swelled, and appeared of a leaden hue. The swelling was discussed by proper remedies, and the menstrual flux brought back, a large quantity of thick coagulated blood being discharged, afterwards a bloody water, and at length a viscid yellow matter. In this manner she continued four years, sundry medicines, chiefly balsamic pills and saline powders, being taken without effect. The pain and flux now ceased; but two months after the pain returned in a most violent degree, in the region of the pubes,

pubes, with a tenesmus, tension of the back, eructations, vomitings, loss of appetite and sleep, and constipation of the belly. By oily glysters with assafetida, nitrous powders with cinnabar and castor, the mineral anodyne liquor, bladders full of warm decoctions applied to the affected part, the pain was abated a little, and some clots of blood were discharged, followed by a bloody liquid. In a few days the symptoms returned as violent as before, with a sensation as if the uterus was drawn outwards. The former medicines were given in vain. Opiates gave momentary relief; warm spiritous applications, none. The greatest ease was obtained from pills composed of storax, saffron and cinnabar. Under the pains, some clots of blood were again voided, and afterwards a small quantity of florid blood, followed by a bloody liquor. In this manner she continued for some time; the pains abating when the discharge succeeded, and increasing when it stopt; a hard tumour at the same time arising in the left side above the groin. In the end the disease proved fatal.

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CHAPTER XI.

Of OPTHALMIA.§ 1. *General History of Ophthalmia.*

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OPTHALMIA consists in an inflammation of the membranes of the eyes.

This disorder happens, when small lateral vessels, which in their natural state carry only a colourless pellucid liquor, are distended with blood; for, on injecting a liquor of a red colour and somewhat thick consistence into a branch of the carotid artery, the tunica adnata of the eye appears reddish and inflamed throughout its whole extent.

The slighter ophthalmiæ, occasioned by dust, exposure to cold, air, sun, or other slight external causes, are inflammations of the tunica adnata only, and attended with little danger.

The more violent, in which the eye-lids are also inflamed, and the eye affected throughout with
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an exquisite burning heat and pain, which are exasperated by light, prove frequently obstinate and of long continuance, and sometimes leave a dimness of sight, by rendering the humours of the eye turbid, the cornea thicker and less pellucid. These arise most commonly from internal causes, and are never to be cured without internal remedies.

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The still more violent inflammations penetrating to the bottom of the eye and its interior coats, are accompanied with most acute pain and fever. These often terminate in a suppuration and total efflux of the humours. They are commonly occasioned by violent blows or other external injuries, though sometimes they have followed from the repulsion of inveterate eruptions on the head.

Debauches, immoderate venery, intemperance in study, the frequent looking at bright colours, strong light, watching, acrid fumes, the measles and small pox, dispose to this disorder. If joined with an hemicrania or tooth-ach, an acrid scorbutic serum is the cause of both: this frequently happens from the repulsion of gouty humours.

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§ 2. *Method of Cure.*

The cure is to be effected by the general evacuations of bleeding and purging, and making a more immediate derivation from the eyes, by leeches, cupping, blisters applied to the nape of the neck and behind the ears. An infusion of valerian root, liquorice, elder-flowers and fennel-seeds, is to be drank plentifully as tea, for promoting perspiration; and its steam received on the eyes. Collyria with camphor and sugar of lead, are to be frequently applied warm; or if the humours are very acrimonious, some soft mucilage, with a little saffron.

§ 3. *Practical Cautions and Observations.*

1. The slighter ophthalmia yields to cold repellent applications, as the white of an egg beat up with rose-water, and a little alum. The more violent requires powerful internal medicines, diluents, whey, mineral waters, diaphoretics, laxatives, with pediluvia, and if the patient be plethoric, early bleeding. In the most violent kind, attended with a fever and danger of suppuration, bleed copiously in the jugulars, give internally diaphoretics, resolvents, small doses of nitre and camphor; and apply externally collyria

ria of rose-water, with a little camphor and saffron : cooling applications do harm.

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2. Bleeding is not necessary in all ophthalmiæ: but wherever there is a remarkable plethora, where customary venesection has been neglected, or critical hæmorrhages suppressed, it cannot safely be omitted. Blisters, setons, scarification behind the ears, rarely have place, till, in plethoric habits, venesection, in cacochymic, laxatives, have been premised. Where blisters are necessary, a single application will not suffice; they must be several times repeated, and that on the more sensible parts, as the nape of the neck, the elbows, and the wrists: hence setons are preferred; but as these are too painful and troublesome, our gentle blister is more advisable: the plaster may be made of the size of a halfpenny, and kept on the neck for a month, or longer.

3. Purgatives are to be adapted to the constitution of the patient: where manna, tamarinds and tartar will take place, the more acrid cathartics are never to be used. Where the disorder proceeds rather from an acrimony of the serum than a redundance of blood, diaphoretics are of good service, but must be continued for a considerable time; particularly if the ophthalmia

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has succeeded another disease, or is joined with an hemicrania.

4. In all inflammations or other disorders of the eyes, avoid spiritous liquors, immoderate exercise, gross food, smoking tobacco, sternutatories, the vapour of onions and garlic, bright colours and strong light. The drink should be water or aqueous liquors.

5. Great caution is requisite with regard to topics; the imprudent use of which has too frequently occasioned blindness. They are in general either too acrid, with lime-water, sal ammoniac, white or blue vitriol; or too astringent, with alum; or too cooling, with sugar of lead; or too drying, with calamine or tutty; or too relaxing, with mucilages and fresh butter. Though all these have their use in other disorders of the eyes, yet in inflammations, especially bloody ones, they are rather injurious than beneficial: the stagnation of the blood is confirmed, the pellucid humours rendered turbid, a wasting, corruption and suffusion of the eye, and sometimes an exulceration of the eye-lids, succeed.

6. It is most advisable to abstain from topics till the third day, when, internals having been premised, those above recommended may be applied.

plied. In chronical ophthalmiæ, attended with a constant flux of acrid lymph, a mixture of one part of white vitriol, and six of fresh butter, is likewise of good service: about the bulk of a large pea is to be put occasionally into the corner of the eye.

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7. If the disorder leaves a kind of spot and diminution of sight, as it frequently does; nothing is better than some drops of fresh vipers fat let fall into the eye, and the smelling occasionally volatile salts impregnated with oil of marjoram. But these remedies must be used early; for if the complaint be of long standing, it is scarce to be removed. I have known however an almost total loss of sight from an ophthalmia, cured by mercurial liniments applied to the knees and hams, with the interposition of warm bathing.

§ 4. *Histories of Cases.*

1. A young man, hot in fencing, received a blow with the foil on the left eye, which immediately grew red and painful, but did not hinder the evening being spent in wine and quarrels. Next day succeeded a large tumour and beating pain of the eye and parts adjacent, a headach, anxiety of the præcordia, and quick pulse; which were aggravated by a cold collyrium, so as entirely

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tirely to prevent sleep. Blood was now drawn, but without effect: the eye suppurated, and on the fifth day from the blow, discharged a large quantity of pus, which was followed by an efflux of the humours. After the loss of the eye, applications of camphorated spirit of wine, with tincture of saffron, and internal antiseptics, were requisite, for preventing a mortification.

If the inflammation had not been increased by wine, and confirmed by the collyrium; it would probably have yielded to immediate bleeding, and a cataplasm of orris root, red roses, lavender and rosemary-flowers, chamomile-flowers, camphor and saffron, boiled in wine.

2. A woman of forty-two, full of blood, corpulent, and of a scrophulous habit, complained, after a retention of the menses, of a pain and redness of the left eye, and a violent aching of that side of the head; which returned annually in October, continuing for some months, with a loss of appetite, impatience of light, and a copious flux of serum from the eyes. Many remedies were used without relief: volatile oily spirits constantly did harm, bringing on a sleepiness and great heaviness of the head. A course of Pyrmont waters, in the summer after the third attack, made a complete cure.

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3. A man of forty was taken suddenly with a pain and redness of one eye, supposed from some minute particle of iron thrown off in driving a nail. On the use of cold collyria, the burning heat abated, but the bulb became turbid and obscure, and sight was entirely lost. An infusion of fennel-seeds in water was drank plentifully; volatile salt, impregnated with oil of marjoram, frequently smelt to; and a plaster, composed of elemi, anise, mastich and expressed oil of nutmegs, each two drams, camphor and balsam of Peru, each one dram, applied to the forehead and temples. By these remedies, the sight and lustre of the eye were in a few weeks restored.

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4. A young gentleman, of very weak sight, from immoderate application to study, complained of an obtuse pain and heat of the eyes, and a copious discharge of serum on looking at the light, or attempting to read. An exact regimen, purgatives, decoctions for purifying the blood, sternutatories, smoking tobacco, pediluvia, scarification, venesection, issues, blisters, applications of balsam of Peru, vipers fat and various collyria, did no service. The Pyrmont waters increased the weakness of the eyes, and rendered the sight cloudy, so as to endanger a cataract. Mercurial pills, with balsamic bitter extracts

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tracts and gums, a tea of fennel-seeds with milk, and a poultice of bread and cream with saffron and elder-flowers, gave relief, removing the pain, though some weakness of sight still remained.

5. A little of the acrid juice with which hair is stained black, having fallen into a man's eye, occasioned a redness, and such violent pain, that he could neither sleep nor take any food. From frequent cold collyria of rose-water with tutty, and with sugar of lead, no ease was obtained, the bulb of the eye grew less, the humours turbid, the sight was lost, and a hard tumour like a pea arose on the cornea: the eye-lid closed, and when lifted up by the hand, was found void of sense; in its internal parts appeared a bladderly tumour, which almost hindered the eye from being seen. Cathartics and blisters on the neck did more harm than good. Frequent applications of camphorated spirit of wine and balsam of Peru, freed from the spirit by evaporation, and inclosed in double linen-cloths; cataplasms of bread and milk with roasted apples and saffron; mercurial purgatives, with ammoniacum, balsam of Peru, and salt of amber; teas of fennel-seed and veronica; and diascoredium with nitre; removed the pain, redness and burning heat, and the tumour of the eye-lid; but

but the rupture of the cornea, and incrassation of the humours, rendered the sight irrecoverable.

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6. A young gentleman, of a tender constitution, and sedentary studious life, subject to head-achs, bleeding at the nose and catarrhs, was seized with a violent pain of the head and eyes, which returned every morning, continued about six hours, and then gradually went off: each paroxysm was preceded by a slight shivering, and accompanied with a quick pulse, a redness of the parts affected, and a discharge of saline serum: sleep and appetite were good; the belly bound. This disorder, after resisting for a month a variety of medicines, collyria, errhines, cupping, evacuants, and cephalics; yielded in eight days to mercurial pills, with ammoniacum, extracts of saffron and castor, and balsam of Peru, taken every other day; keeping the legs in a warm bath for an hour before the accessions, and at the same time drinking plentifully an infusion of balm, lime-flowers, valerian root and fennel-seeds, which promoted a copious sweat; some nitrous medicines given at night; spirit of rosemary, with twice its quantity of rose-water, applied externally; and aromatic powders sprinkled among the hair. A cloudiness of sight which remained after the removal of the other complaints, was cured by fresh vipers fat frequently introduced into the eye.

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7. A gentleman of fixty, of a thin habit, had an erysipelas in the foot, which for some years returned almost every quarter, and at length terminated in an ulcer; which, after being kept open for a year or more, was healed up. An hemicrania of the right side succeeded, with a violent pain, deep in the orbit of the eye, and a flux of saline serum. This returned almost every month, about the time of new moon. Each paroxysm was preceded by shivering and chilness of the extremities, attended with a quick pulse. It commonly continued about four days, and then went off in a copious sweat. After a course of Pyrmont waters, a decoction of scorzonera, china, sarsaparilla, liquorice and raisins, was used for common drink. An infusion of manna, rhubarb and cream of tartar, was taken once a month, and an issue made in the right arm. At the same time, the gross high seasoned food to which he had been accustomed was abstained from. By these means his complaints were removed.

CHAPTER XII.

Of the INFLAMMATION of the INTESTINES.§ 1. *General History.*

ENTERITIS, or inflammation of the intestines, is distinguished by a burning heat and pain in the lower belly, with a fever, prostration of strength, anxiety and restlessness.

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If the pain be perceived in the middle of the abdomen about the navel, the small intestines are affected; if in the left side, under the loins, about the psoas muscles, the colon and mesocolon; if in the right hypochondre, under the false ribs, the beginning of the colon or its juncture with the ilium; if between the navel and stomach, that part of the colon which lies under the stomach, in which case nausea and vomiting attend. Often the mesentery, which is connected with the intestines, is the part principally affected; then the disease is generally accompanied with a diarrhœa, and terminates in copious putrid or purulent stools.

Sometimes

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Sometimes only the exterior coat of the intestines, which are chiefly productions of the membranes of the mesentery, are inflamed. In this case, the disease is mild, and easily yields about the fourth or seventh day. Inflammations lodged deeper, unless carried off by a diarrhœa or hæmorrhage, continue longer, suppurate, and at length end in a hectic fever.

§ 2. *Method of Cure, with practical Cautions and Observations.*

1. Persons disposed to inflammatory distempers, ought carefully to avoid the causes of these dangerous inflammations, the principal of which are, a deficiency of the salutary excretions, or attempts to promote them by the stronger purgatives, emetics or emmenagogues. Violent passions and excessive fatigue of mind or body, exposure, when heated, to sudden cold, and the drinking of cold or frozen liquors in summer.

2. If an inflammation is already formed, bleed immediately, if the patient be plethoric, in the upper parts: by this means, in convulsive colics, inflammatory diarrhœas and dysenteries, and acute pains of the hæmorrhoidal vessels, an increase of the disorder is prevented. After bleeding, warm pediluvia continued for some time,

time, are of service for relaxing the lower parts, and diverting the flux of humours from those affected.

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testines.

3. To discuss the inflammation, inject glysters of oily, gelatinous and sweet substances ; apply externally to the abdominal region, bladders full of warm liquor, or emollient epithems or liniments, with a little camphor, and give internally diaphoretics mixed with anodynes, in small repeated doses, for some days together, as a mixture of the volatile aromatic spirit, with spiritus nitri dulcis ; the simple alexiterial water, distilled vinegar, rob of elder-berries, nitre and syrup of poppies, or contrayerva and nitre, with a little camphor and opium. These remedies, properly timed and managed, give great relief even in the iliac passion, and in the spastic corrugation of the coats of the intestines, called by the Greeks *chordapsus*.

4. All acrid stimulants and purgatives, even the purging salts in large doses, are prejudicial. Practitioners are greatly to be blamed, who, when the belly is obstinately bound, give repeated doses of cathartics, which not only exasperate the disease, but render it mortal. Even glysters should be composed of emollients only, without any mixture of the more stimulating salts, as sal

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gem, or of purgatives, as colocynth: milk with a little nitre, or common water with syrup of violets, or solutive syrup of roses, or the mel mercuriale, are injected with much advantage; these soft liquors, like a bath or fomentation, relaxing the intestines, and washing out their contents. The glyster should be repeated, if necessary, almost every second hour, and retained for a considerable time, particularly where there are frequent vomitings, and a discharge of flatulencies upwards.

5. After venesection, where a fulness of the vessels requires that evacuation, and when the belly has been loosened by glysters; if the fierce pain does not remit, we may safely venture upon opium; this will procure ease, and a sweat will follow. If great weakness ensues, the diluents and laxatives must be laid aside, and corroborants substituted in their room, as tinctures of amber and cascarilla, the stomachic elixir, and the balsamum vitæ mixed with the anodyne liquor.

6. If pains and inflammations of the intestines terminate in a simple, purulent, or bloody flux of the belly, gentle laxatives as rhubarb, and corroborants, as cascarilla, may be exhibited alternately, in such a manner, that whilst the morbid

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bid humours are evacuated, the tone of the intestines may be strengthened.

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testines.

7. Epidemic dysenteries and diarrhœas, frequently come on in young people with a violent inflammatory fever. In this case, venesection is highly necessary, though generally forbid in all kinds of fluxes; for even inveterate dysenteries rarely prove mortal, unless by occasioning an inflammation and gangrene of the intestines, which are always preceded and accompanied by a high fever. The slight inflammation with which all dysenteries are attended, is to be distinguished from this acute inflammatory fever: in the first, bleeding may be omitted; but in the latter, it is the principal remedy.

§ 3. *Histories of Cases.*

1. A woman above forty, subject to colics and spasmodic disorders, from a sedentary life and affliction of mind, omitted customary venesection, and after a violent fit of passion, took in the evening purging pills, which procured no evacuation. Next day she was seized with heat and anxiety about the præcordia, continual eructations, and a vomiting of almost every thing taken into the stomach. A glyster was retained for an hour, and came away without any feces

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or flatulencies, or abatement of the symptoms : manna, aperient salts, rhubarb, were thrown up, and carminatives did no service. Bleeding gave some relief, but the obstinate constipation and tensive pains of the belly continued : a glyster was repeated, and balsamic pills exhibited without effect. On the seventh day, the anxieties and eructations returned, with a fever and pains of the back. A bladder of warm liquor was now applied to the abdomen, and glysters of water, with syrup of marshmallows and nitre, injected every three hours : the fourth brought away some flatulencies, and the sixth, feces, after which she was easier. A carminative essence, with the mineral anodyne liquor, and thebaic tincture, procured sleep, which was followed by a sweat, a softness of the pulse, which before had been hard and quick, and a free discharge of urine, before very sparing. The opiate was omitted, and the essence and anodyne liquor continued till she got well.

2. A gentleman above forty, of a strong constitution, after changing a laborious military life for a sedentary one, and indulging appetite, became costive, slept ill, and some time after complained of a sharp pain all over the abdomen, and in the lumbar region, with heat, eructations, a quick pulse, and want of sleep. Strong carminatives,

minatives, spiritous elixirs, with distilled oils, exasperated the symptoms: ptisan drank plentifully, nitrous powders, and emollient glysters frequently repeated, gave relief; but a troublesome pain of the lower belly remained, extending from the os sacrum to the inguina. A carminative essence was given, with the mineral anodyne liquor and a little laudanum, and a dram of magnesia subjoined; with half a dram of nitre and some manna. Several stools followed, with black, corrupted, fetid blood, to the quantity of some pounds in six days, the pain and other symptoms immediately remitting. Balsamic pills, with a strengthening powder, whose basis was cascarilla and amber, finished the cure. About a year after, the same disorder returned, with intense pains, reaching to the back, a fever, and red miliary eruptions: the back was scarified, and all the medicines which before had been of service, repeated without effect; in the sixth week, extremely weakened from want of sleep, he expired.

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testines.

3. A thick well set country man, having fallen with his belly on a pointed block, complained of exquisite pain a little above the navel, to which a fever acceded. Some days after, a fanious bloody matter was voided both upwards and downwards, on which the fever went off,

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but a languor and prostration of appetite remained. After a fortnight, on beginning to work, the pain, faintings, and fever returned, with cold sweats of the extremities, to such a degree that the patient seemed expiring: a bloody and sanious diarrhœa however proved again a solution. In seven days, the same symptoms returned a third time, and ended in like manner in a flux. By the frequent use of water-gruel, emollients, decoctions in ale of the vulnerary herbs, alchemilla, agrimony, fanicle, strawberry, veronica, daisy-flowers, St John's wort flowers, and others, he recovered perfect health.

4. A boy of fifteen, of a tender constitution, and active disposition, after eating dry cakes, and exposure to cold when heated by exercise, complained of violent gripes, and an obstinate constipation of the belly for some days: on the left side of the abdomen a kind of hard protuberance was perceivable. An emollient glyster and an infusion of manna loosened the belly; on which the swelling subsided, and the pain remitted. Next day they returned with a preternatural heat, quick pulse, turbulent sleep, and dryness and burning heat of the mouth, with tough phlegm. Gargarisms, emulsions and nitrous powders were employed, with the interposition
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of the mineral anodyne liquor, and gentle diaphoretics. The heat nevertheless increased with a stricture of the anus, which prevented the admission of glysters. The nitrous powders being continued, with digestive salts, the heat abated, and a quantity of scybalæ were voided with flatulencies. He continued thus till the twelfth day, when he was seized with severe anxiety, restlessness, heat, and loss of strength, that he seemed ready to expire. He complained most of a violent pain in the belly, chiefly in that part where the hardness had been perceived. A draught of the aqua cardui benedicti, vinegar, rhubarb, diaphoretic antimony, and crabs-eyes, was given frequently; a bladder of warm liquor was applied to the affected part, and several glysters injected. The pain abated, a sweat broke out, large quantities of excrements came away, and by degrees he recovered.

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CHAPTER XIII.

Of HECTIC and SLOW FEVERS.§ 1. *General History of Hectic and Slow Fevers.*

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HECTIC or slow fevers are chiefly marked by their continuance for a long time with a gentle heat, suffering remissions at particular times, accompanied with wasting of the body, and gradual loss of strength.

The fevers strictly called hectic, are accompanied with some degree of constant preternatural heat, and with a quick, weak and hard pulse, which increase after meals, and in the evenings. The skin and tongue are dry, pained and hard, the cheeks red, the urine high coloured, often with a rose-coloured sediment at the bottom, and a bluish unctuous cuticle on the top. There is no refreshing sleep, the whole body is weak and flaccid, and wastes to such a degree that the bones become very protuberant.

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In proper slow fevers, the symptoms are milder. The heat is gentle, the patient sweats plentifully in his sleep. After sleep, and during the forenoon, the pulse is natural. There is not the same loss of appetite or strength as in the hectic. There is not the same dryness of the body, or morbid appearance of the urine.

Hectic
and slow
Fever.

Hectics are generally symptomatic, of a considerable suppuration in some of the viscera: wherever internal ulcers, cancers of the breasts, genitals or uterus, cachexies and dropsies from an induration, scirrhus or corruption of the liver, spleen, omentum, pancreas, or mesenteric glands, prove mortal, it is of a hectic fever that the patient dies. In slow fevers, there seems to be only a beginning indisposition of some solid part, the disorder depending chiefly upon the fluids; as when old running ulcers have been healed up, cutaneous eruptions repelled, critical hæmorrhages, sweats, or other salutary excretions of corrupted humours, suppressed; or when the strength has been so far exhausted by diseases, excessive hæmorrhages, venery, anxieties of mind, or other similar causes, so that the stomach, unable sufficiently to digest the aliment, sends a crude unelaborated chyle into the blood.

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Children are subject to a kind of slow fever, accompanied with a remarkable swelling of the belly, and wasting of the parts above it, a dry cough, loss of appetite and strength, wandering heats, which increase in the evenings, and after meals, sometimes costiveness, sometimes loose, white, slimy stools. The immediate cause of this disease is a tumefaction of the mesenteric glands, by which the free passage of the chyle into the blood is obstructed; the antecedent causes, cold, voracity, and want of due dilution. On dissection, scirrhus and steatomatous tumours are always found in the mesentery; and often vomicae and tubercles in the lungs.

Aged persons are subject to a fatal hectic, called *marasmus*. The appetite fails, the strength gradually decays, the body wastes, and the bones appear like a skeleton covered with skin. The mouth and tongue are dry; the saliva glutinous; the voice hoarse; the skin cold, parched, and rigid; the internal parts hot; the pulse hard and frequent; sleep deficient, and unrefreshing. These symptoms increase insensibly, till in five or six months the patient sinks under them.

An erosion of the stomach and intestines, from acrid humours generated in the body, or corrosive medicines, produces a hectic fever, little taken

ken notice of by practical writers, and whose cause is difficultly distinguished. Its most certain diagnostics are, that salted foods or a full meal occasion spasms, eructations and gripes; that the belly is variable, sometimes loose, and sometimes bound; and that shivering and heat, cold and hot sweats, with a quick pulse, return periodically.

Hætic
and flow
Fevers.

Fevers of the flow kind frequently yield to the early use of proper remedies; but true hætics very rarely admit of a cure. A constant quickness and weakness of the pulse, extreme loss of appetite and strength, insomuch that the sick can scarcely move or keep erect, a cadaverous appearance of the face, the urine in small quantity, red or oleaginous, falling off of the hair, profuse sweats, colliquative diarrhœa, and swelling of the feet, are frequent presages of death.

§ 3. *Method of Cure, with practical Cautions and Observations.*

1. If indigestion, and crudities in the first passages proceeding from thence, give rise to a slow fever, distinguishable by a languor, internal heat, and constant disposition to sweat, particularly in the palms of the hands and soles of the feet; a single vomit of ipecacuanha, with the elixir aloes subjoined,

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joined, will oftentimes in a few days effect a cure. If emetics are contraindicated, give first the sal polychrestus, tartarus vitriolatus, or other saline purgatives, either by themselves, or with an equal quantity of rhubarb, in small repeated doses, and largely diluted; and afterwards bitters and stomachics, as gentian, cascarilla, the stomachic essence made with dulcified spirit of nitre, a little before meals; not omitting moderate exercise, and the drinking of wholesome liquors, which in all these kinds of fevers contribute greatly to the cure.

2. Slow fevers from the premature suppression of intermittents, are to be treated in the same manner. If they yield not to these remedies, a return of the intermittent will be the cure. The ague is frequently brought back by purging, cold bathing, or exposing the lumbar region to cold northerly winds.

3. In cacochymic and scorbutic habits, where the disorder proceeds from menstrual or hæmorrhoidal obstructions; the cure is to be effected by the purging mineral waters, with deobstruents, stomachics, and chalybeates.

4. Slow fevers from an erosion of the stomach and intestines, are to be cured only by corroborants,

rants, as a decoction of saffrafras and cascarilla in milk, taken to the quantity of a quart a-day ; and emollients, as a decoction of althea, with broths, rice and milk, and mucilage of gum tragacanth made in mint-water. If violent spasms in the abdomen are complained of, pills composed of bitter extracts, oil of nutmegs, saffron and castor, will give relief. Emollient glysters are of service. All acrids, acids, stimulants, fermentable sweets, and aliments of hard digestion, are injurious : even Rhenish wine, on account of its acidity, does harm.

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5. Lingeriug hectics, in those whose strength has been exhausted by fatigues of mind or body, abstinence, venery, running ulcers, or other causes, are to be treated with soft cooling analeptics, emulsions with jelly of hartshorn and rose-water, or simple cinnamon-water, milk, chicken-broth, ptisans, with cray-fish, oysters. Moselle or Neckar wine, may be allowed, in small quantity. Gentle exercise is proper, but avoid fatigue.

6. If the disorder arises from the immoderate use of spiritous liquors ; whey, barley-water, water-gruel, with cichory-root, and a little nitre, are to be used liberally for common drink ; and all heating medicines, analeptics and stomachics, abstained from.

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7. In the slow fever, from a sudden suppression of the menses, a vein is to be immediately opened in the foot, and some mild deobstruent subjoined : but if the disorder has continued long, abstain from bleeding, which will then fruitlessly weaken the patient. In those hectic fevers likewise, which proceed from a cessation of the menses after child-birth, accompanied with an atrophy, cough, diarrhœa, difficulty of breathing, universal languor, and a wasting heat ; as also in the weakening hectic from hæmorrhoidal obstructions ; all attempts to renew the flux, whether by bleeding or forcing aloetics, are injurious : after blood had been drawn, which was very fluid, and of a crimson colour, the fever and weakness have increased, and death succeeded sooner than could otherwise have been expected.

8. A disposition to a marasmus is to be removed in plethoric persons of a good appetite and sedentary life, by bleeding, dilution, exercise and abstinence from too nutritious foods ; in impure cacochymic habits, by gentle laxatives of rhubarb and manna, jellies and milk : but after the disease is formed, there are little hopes of relief.

9. The

9. The hectic atrophy of children, from voracity and cold, will often yield to warm bathing continued for some time, with frequent small doses of a mixture of salt of tartar, nitre, vitriolated nitre, each two parts, sal ammoniac one part, given in the child's drink. But when the disease succeeds the measles or the small pox, medicines seldom take place.

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10. In all hectic, milk, provided it agrees with the constitution, is one of the principal remedies. Human milk, sucked immediately from the breast, is best, and next to it, that of asses. Where neither of these is procurable, dissolve an ounce of manna, or of the sugar or conserve of roses, in a pint of cow's milk, to be drank in the morning, for the first two or three days: after which, a quart is to be taken every day, with half an ounce of sugar, or saccharum rosaceum, and half a dram of nitre: in suspicion of an ulceration of any of the viscera, the milk is to be mixed with one third, or one half its quantity of the Seltzer mineral waters. The patient must continue the milk for at least six weeks, avoiding every thing that may coagulate it, or oppress or weaken the stomach: a little Hungarian wine may be allowed, for strengthening that viscus. Where milk does not agree, or is improper, as in hypochondriacal persons,

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persons, and where the fever is high and attended with a headach ; the saccharine whey, made by inspissating milk, and digesting the residuum with about as much water as was wasted in the evaporation, elegantly supplies its place.

11. In all these kinds of fever, the intimate dissolution and colliquation of the blood is to be guarded against by mild astringents and corroborants ; as the tincture of roses, balsamic elixir without spirit, cascarilla and Peruvian bark mixed with nitre and made into an electuary with syrup of lemon-juice. By these medicines, life has been long protracted, both in hectic and in phthifical disorders.

12. Preparations of lead, as the saccharum saturni and tinctura saturnina, however strongly commended against hectic heats and colliquative sweats, are entirely to be abstained from. Their ill effects are greater and more certain than their good ones.

13. Bathing is useful at the beginning, particularly in the slow fevers of children, and in such as proceed from an exhaustion of the strength ; as it moistens the body, and softens and relaxes the rigid fibres. But neither cold nor hot baths do any service in the advanced
state,

state, where abscesses are already formed in the viscera.

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14. Exercise is highly conducive to the cure. Riding is the most proper exercise; which, by a constant concussion of the whole habit, promotes the circulation of the blood through the obstructed vessels, and the excretion of the morbid humours. In the hætic fevers, properly so called, it ought to be more moderate than in the slow.

15. Whatever is to be done in these kinds of fevers, must be done early; for in their advanced state, all remedies are ineffectual. The patient is always worst, and most liable to sink under the distemper, in the autumn and spring, from the frequent and unwholesome vicissitudes of weather; about these seasons therefore, he must particularly observe a strict regimen and tranquillity of mind, and guard against the injuries of the air.

§ 4. *Histories of Cases.*

1. A man above forty, who had for many years indulged in the immoderate use of strong liquors, but eat little, was seized with a violent cough, which entirely prevented sleep, accom-

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panied with a copious expectoration of mucous matter, an intense heat coming on in the evenings, a difficulty of breathing, depression of the strength, and wasting of the body. By the use of a pectoral ale, nitrous powders, and thin broths for some weeks, he was greatly relieved: but having returned to his former way of life, and suffered great anxiety of mind, he was seized, after a violent fit of passion, with a spitting of blood, followed by a phthisis, hectic, and at length death.

Those who have contracted phthifical or hectic disorders from immoderate drinking, loathe milk: hence ale must be allowed, but medicated with liverwort, lungwort, lungmoss, scabious, groundivy, carduus, veronica, agrimony, coltsfoot, and other like plants, with the addition of rhubarb; decoctions of these kinds of herbs, either in water or ale, continued for a length of time, with honey occasionally, have had surprising effects in these chronical fevers; but the disorder readily returns again, unless a strict regimen be observed, and the imbecility of the viscera totally removed.

2. A young gentleman, of a tender constitution, very subject to catarrhs, diarrhœas, coughs, and disposed to a phthisis, was seized in the spring with

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a very violent cough then epidemic, at first dry, afterwards moist, with internal heat, shiverings at times, and a prostration of the strength from want of sleep. Gentle laxatives, pectoral lo-hochs, powders and elixirs, continued for six weeks or more, gave no considerable relief. A hætic being now apprehended, he drank two quarts a-day of a mixture of cows milk, with an equal quantity of a decoction of barley, hartshorn-shavings, scorzonera-root and fennel-seeds; and took occasionally a nitrous powder with spermaceti and sulphur. By these remedies, the symptoms were gradually abated, and at length a complete cure obtained.

In hætic cases we are not entirely to despair, as long as there is reason to believe that an inflammation, ulcer or scirrhus of the viscera is not already formed. These mild domestic remedies are possessed of greater virtues against obstinate chronical disorders, than all the preparations of the shops, and seem to have come into neglect merely from being improperly applied: practitioners taking all violent humid coughs to be phthical, have exhibited pectorals with a liberal hand, though oftentimes the disorder proceeds only from an acrimony and redundancy of humours; in which case, these sweet unctuous relaxants do more harm than good.

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3. A soldier, after being severely whipped on the left side of the chest and back, complained of a pain in the left hypochondre, with a tumour above the os ileum. In some weeks, a diarrhœa proved a solution both of the pain and tumour: the stools were sanious and fetid, and tinged with black blood. By a continuance of the loose stools, eight or ten a-day, for three months, he became languid and weak, greatly emaciated, of a livid aspect, the appetite destroyed, the fauces parched, the pulse quick, with some degree of hardness. He now began to drink sweet whey, to the quantity of a quart a-day; and an infusion of scabious, veronica, sanicle, mint, balm, milfoil, St John's wort-flowers and wild poppies. These medicines having been continued for some weeks, the diarrhœa and other symptoms were abated; and the amendment such, as to promise a complete recovery.

The abscess was here doubtless formed in the mesentery, notwithstanding the injury was received above it. It is no uncommon thing for stagnations of blood to happen there, from an obstruction of its circulation in the remoter parts: from a wound of the diaphragm, the blood has burst through the mesenteric vessels, and overflowed the abdomen: from a polypus in the heart, the mesentery has been found full
 of

of blood, its vessels partly distended, and partly ruptured.

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4. A man of a thin habit and choleric disposition, of an hereditary pulmonary taint, who had contracted weakness of the stomach, from a sedentary life, immoderate study and passions, expectorated large quantities of viscid phlegm for some years. The excretion increased, and continued surprisingly copious for two months, with a slow fever, difficulty of breathing, loss of strength, and an exquisite burning heat in making water. These complaints were removed by emulsions, medicated broths, and emollient decoctions, with the interposition of gentle laxatives: but a year after, they returned again. To produce a flux from the hæmorrhoidal vessels, a vein was opened in the foot, and a quantity of florid blood taken away: the same evening, an universal shivering came on, followed by an intense heat, a restless night, an extreme loss of strength, and a true hætic, which quickly carried him off.

Let the young practitioner learn from hence to spare the lancet in weak hætic habits, which require a recruit rather than a diminution of blood and juices. There are many other examples of death being accelerated in these cases

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by venesection. A lady about twenty, after riding in a cold air whilst weak from lying-in, complained of catarrh, a dry panting cough, lassitude, and nocturnal sweats: sweet pectorals gave no relief: a vein being opened in the foot for promoting the menses, the strength sunk, and in a little time she expired.

5. A privy counsellor above forty, tall and thin, subject to hypochondriacal disorders and slight hæmorrhoidal discharges, complained, after a violent fit of passion, of a languor of the whole body, pain about the first vertebra of the loins, gripes, internal heat increasing towards night, loss of appetite, costiveness, and flatulencies regurgitating upwards. A vein was opened, digestive, absorbent and nitrous powders exhibited, without relief. The pain and internal heat rather increased, with an anxiety of the præcordia, a wasting of the flesh and strength, and great distension of the belly at times from flatulencies. These symptoms continued two months, and a cure was despaired of, till nature pointed out the way by sanious stools and urine. The purulent discharge held three months or longer, and occasioned great weakness and emaciation: nevertheless, by means of a strict regimen, gelatinous broths, milk, vulnerary decoctions, and mineral waters, the symptoms gradually abated, and perfect health returned.

Hypo-

Hypochondriacal and hæmorrhoidal persons are very subject to inflammations and abscesses of the mesentery, the meseraic vessels being in them already turgid with blood and humours, and the circulation through that viscus flow. The cure was entirely the work of nature : the pus voided by stool, urine and expectoration had been reabsorbed by the veins, and secreted again in the common course of the blood, without affecting the intestines, the kidneys or the lungs. As these kinds of abscesses are very apt to return, a strict regimen must be observed during life.

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6. A woman of thirty, of a tender constitution, after changing a thin soft diet for a gross one, and liberally indulging in the use of hung meat and salt fish, fell into a spurious tertian, which was removed in a month. Mœbius's aperient tincture from spirit of salt and salt of tartar, coloured with turnsol, exhibited for strengthening the stomach, occasioned an almost insatiable appetite. In a little time, both the appetite and strength decayed, an internal heat came on, with a quick pulse in the evenings, and after meals, a languor of the whole body, and pain and swelling of the feet. A gentle emetic brought up a large quantity of green viscid matter, on which the heat and pain of the bones abated, and the strength

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was refreshed. The emetic was repeated three days after, with the same success, and the cure finished by the balsamic elixir and saline powders.

Though Mœbius's tincture is an excellent stomatic where the appetite is weak, it was improper in this case, where the stomach already demanded more than it could digest.

7. A man of eighty, hale and robust, accustomed to a liberal glass of wine every day ; after a journey in the autumn, drinking foul malt liquors, and eating fermentable foods, complained of indigestion and flatulencies. The hæmorrhoidal flux, which, from a redundance of blood, he had been subject to every month, stopt ; the appetite and strength decayed, continual eructations and retchings ensued, with a dryness of the mouth, costiveness, and a weak quick pulse. All medicines were ineffectual ; the symptoms continued increasing, till in two months he died.

8. A man of forty, of a tender constitution, after long grief of mind and a sedentary life, complained of a languor of the strength, decay of body, loss of appetite, preternatural heat, with a weak and frequent pulse, interrupted sleep, sweats in the mornings, a constant dryness
of

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of the mouth, and leaden colour of the face. After these symptoms had continued for six weeks, the belly bound; two grains of sulphurated scammony, with some vitriolated tartar, purged him strongly for upwards of eight days together. The strength failed prodigiously, he grew apt to faint in an erect posture, the heat increased, and anxieties of the præcordia came on. Upon taking away some ounces of blood, the anxiety abated, but the patient in a little time sunk under the weakness.

This disorder was a hætic fever from a sphacelous corruption of some of the viscera, most probably of the liver, no uncommon consequence of long grief and an inactive life, in persons of a languid disposition. The diagnostics of these internal corruptions are, a total prostration of appetite and strength, unrefreshing sleep, a livid leaden colour of the face, flaccidness of the flesh, retchings to vomit, and colliquative sweats. The unrestrainable flux from the small dose of a purgative, is not to be attributed to the virulence of the medicine, but to the inflammation of the intestines, and acrimony of the humours: let the practitioner, however, beware of incurring censure in like cases, by giving medicines of this kind.

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9. A woman of sixty-three, of a tender constitution, complained, after a violent fright, of uneasy tensions and spasms in the limbs; to which were afterwards joined, an obstinate tumour above the clavicle under the mastoideus muscle; a slow wasting fever, with a burning heat in the palms and soles, particularly about midnight, beating and tensive pains of the head at times, changing place under the skin from the neck down to the gums; loss of appetite, nausea and anxiety, dull gripes in the belly now and then, which were generally relieved by a loose stool, turbid red urine with a sediment, and an oleaginous cuticle. All these symptoms returned periodically, sometimes every second, and sometimes every third day, with an increase of the pulse, which however was constantly frequent, though small. After a gentle purgative of magnesia, manna and Epsom salt, and a glyster of water-gruel, manna and chamomile-flowers, capon broth, with parsley-roots, fennel-roots, cichory-roots, water-creffes, and juice of cray-fish, was taken every morning, with nitrous absorbent powders, ptisan used for common drink, a diachylon plaster, with spermaceti, oil of henbane, saffron and camphor, applied to the tumefied glands, and the limbs anointed with a discutient and antispasmodic liniment. By these remedies, a cure was effected in a month.

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10. A lad of twenty, of a melancholic and choleric temperament, accustomed to excessive drinking, had several times an hæmoptysis, with a straitness of the breast, and a sensation as it were of the blood boiling about the præcordia; which symptoms were always relieved by early bleeding, pediluvia, and nitrous medicines. Some violent fits of passion were followed by a great prostration of the strength and appetite, a difficulty of breathing, restless nights, morning sweats, vehement cough, with expectoration to the extent of at least a pound a-day, a quick pulse from noon to midnight, with a heat in the soles and palms, wasting of the body, high coloured urine, sometimes with a sediment and sometimes without. A variety of medicines, pectorals, antifebriles, and refrigerants, were tried for two months without effect. During the next month, he took a quart of purging water, with milk, every day, milk and coffee twice a-day; for common drink, a decoction of scorzonera and cichory-roots, with hartshorn-shavings and raisins, and occasionally jelly of hartshorn, and a powder of orris-root, liquorice, crabs-eyes, nitre and sugar. The heat being by these medicines abated, and the appetite returning, the milk and powders were continued, with veal-broths at times: the patient gradually mended, and enjoyed perfect health for two

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two years, when hard drinking occasioned sudden death.

This is a singular instance of the cure of a true hectic, and may teach us not entirely to despair, where the disorder has come on suddenly from irregularities; its cause being rather a viscosity and acrimony of the humours, than an ulceration or corruption of the viscera.

11. A lady of a pretty advanced age, a slender habit, and weak constitution, had for several years frequent hysteric cardialgiæ, chiefly after meals, with eructations, nausea, and often vomiting, which last always relieved the cardialgia. Extreme anxieties of the præcordia, restlessness, flying heats, cold sweats, and pains in the head, for the most part accompanied the foregoing symptoms, and often acceded by themselves, continuing several days, with a sense of cold on the crown of the head. The body gradually wasted, the appetite failed, the belly was constantly bound, and the pulse, in the paroxysms, weak and quick. During pregnancy she had no complaint; but after delivery, the lochia being copious, thin and fetid, the former symptoms returned with greater violence. She wasted surprisingly, and weakness confined her constantly to bed: the restlessness and uneasiness increased

fed towards the evening ; there was no refreshing sleep, but profuse sweats during the night, and at times alternate shiverings and heat. A dry cough came on, with pains in the back extending to the groin, and the menses were suppressed. After many medicines had been taken with little effect, a course of asses milk was begun, a gentle laxative of manna and cream of tartar being premised and interposed every seven days ; a nitrous powder exhibited at night ; a decoction of barley, scorzonera, stellated anise and citron-peel, used for common drink ; and chicken-broth, with aperient roots and orange-juice, taken at meals. In a few days the symptoms began to abate, and by degrees a complete cure was obtained.

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CHAPTER XIV.

Of SYMPTOMATIC FEVERS.§ 1. *General Observations.*

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SYMPOMATIC fevers are those acceding as symptoms to other primary internal disorders, or proceeding from external injuries.

About the ninth day of the small-pox, when the pustulæ begin to suppurate, the intense heat and pain which they occasion, kindles a symptomatic fever, which oftentimes runs so high as to prove on the eleventh day fatal.

Gouty and rheumatic pains, and an erysipelas, especially of the head, always begin with a feverish fit, during which, the acrid excrementitious matter is thrown out to the skin and joints, and there, occasioning intense pain, excites a new fever, more or less violent, in proportion to the violence of the pain.

Vehement toothachs, particularly the difficult dentition of children, the blind piles, and indu-
rations

rations of the glands, when extremely painful, are usually attended with a symptomatic fever.

Symptomatic Fevers.

In childbed women, about the third day after delivery, a symptomatic fever arises from tension and pain of the breasts. Apostematous tumours in the breasts, and under the arm-pits, buboes in the groin, burnings, wounds, caustics, in parts of exquisite sensation, occasion fevers, more or less violent in proportion to the intensity of the cause.

Worms likewise are usually productive of an irregular putrid fever, accompanied with a nausea, gripes, slimy urine, and generally a looseness.

These fevers frequently bring on deliria, convulsions, epilepsies, and other fatal symptoms; nor do they ever, like most other fevers, prove salutary, or tend to carry off their cause. The Physician, therefore, ought as soon as possible to mitigate their violence, which is much more easily effected than in the primary fevers; the one arising only from a spastic stricture and tension of the nervous parts, the other from more permanent material causes.

Fevers following from wounds or other injuries, whether external or internal, are occasioned

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fioned by a stagnation of extravasated blood : in this case, therefore, a vein must be immediately opened in the neighbouring parts, and discutients, resolvents, and diaphoretics subjoined ; the principal of these is, good Rhenish wine, with cray-fish juice and theriaca.

In symptomatic fevers, arising from violent pains of the nervous and more sensible parts, give gentle anodynes, as aromatic simple waters, the mineral anodyne liquor, syrup of poppies, and if these prove ineffectual, opium itself.

If the pain be occasioned by an inflammation, diaphoretics, with camphor and nitre, are the most successful remedies.

Symptomatic fevers, proceeding from such external causes as admit the use of topics, require, besides the internal medicines above directed, soft relaxing applications. These are particularly necessary in tumours of the hæmorrhoidal veins, pains and swellings of the limbs, venereal tumours of the inguinal glands, tumours of the breasts and glands of the neck, puncture of a nerve or tendon in venesection, and the bites of mad animals or venomous insects ; in which cases, great relief is obtained from cataplasms of
figs,

figs, honey, fœnugreek-seeds, toasted onions, yolks of eggs, milk and saffron, the common plaster, mixed with a proper quantity of saffron, mucilages made with rose-water, and bladders full of warm liquor applied frequently to the part.

Symptomatic Fevers.

§ 2. *Histories of Cases.*

1. A girl of fourteen, of a tender constitution, who had had the menses very sparingly, fell into a fever, distinguishable by a continual flow heat, with a dry cough, languor of the whole body, pale colour of the face, frequent acute pains about the bastard ribs, and loose fetid ash-coloured stools; the urine in small quantity, with a thick sediment. Emmenagogues did no service. As the girl delighted in sweet-meats, and a few months before had voided some worms, an infusion of rhubarb one dram, worm-feed half a dram, with salt of tartar one scruple, and spirit of vitriol twenty grains, was given at two doses, and ptisan with cichory-root, scordium, and syrup of citron-juice, used for common drink. A powder of rhubarb, worm-feed and nitre, was interposed at times, for a month or longer, when the patient got well, though without voiding any more worms.

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Worm fevers are distinguished from hectics, by the heat not increasing after meals or in the evenings: they are commonly accompanied with a looseness, the feces fetid and ash-coloured, the urine turbid, with a limous sediment. With regard to the cure, if the fever is joined with a flux, abstain from anthelminthics, the stronger purgatives, mercurials, sagapenum, assafoetida, or tanfy, which are held specifics; and give acids, in conjunction with bitters; for acids not only abate the heat, but excellently resist the verminous putrefaction: the purging waters, with thirty drops of spirit of vitriol to a quart, are likewise of good service. Generally no worms are voided, the febrile heat dissolving them into a putrid magma.

2. A lad about twenty, of a thin habit and great sensibility, having dropt a pen knife on the upper tendinous part of the foot, was seized next day with an acute pain of the part, a fever, thirst, anxiety of the præcordia, watchfulness, and some disorder of the senses. Blood was immediately taken from the arm, emulsions with and without nitre, and a diaphoretic discutient mixture, with diascordium, exhibited; and a discutient anodyne plaster applied to the affected part. These medicines being continued for
some

some days, the fever and other symptoms went off.

Symptomatic Fevers.

We learn from this case how dangerous wounds are in the nervous parts, and that the causes of diseases consist often, not in the quantity or quality of an offending matter, but in an inordinate motion. In such cases, we are not to endeavour the correction or evacuation of humours, but the abatement of the turbulent motions, which is chiefly to be effected by opiates.

3. A young man, of a sanguineo-choleric constitution and dissolute life, received a wound in the chest, which, after being healed up, left a weight at the breast, and difficulty of breathing on going up a steep ascent or walking quick. Two years after, he was seized with a languor, headach, loss of appetite and sleep, a febrile heat coming on sometimes in the evening, sometimes during the night, preceded by a slight shivering, and followed in the morning by a profuse weakening sweat, with an increase of the difficulty of breathing, and a pain in the part formerly affected. Discutient and diaphoretic mixtures, emollient and refrigerant emulsions, temperating powders with citron-juice, laxatives, ptisan used for drink, did no service. At length

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a venereal bubo on the groin, being suppurated by emollient applications, and opened, discharged a large quantity of pus, on which the symptoms abated, and in three weeks a complete cure was obtained.

P A R T

PART II.

OF HÆMORRHAGES AND PAINS.

SECTION I.

OF HÆMORRHAGES.

INTRODUCTION.

Of HÆMORRHAGES in general.

1. **S**PONTANEOUS excretions of blood happen generally in parts of a tender structure, furnished with numerous small vessels lying near the surface; as the inside of the nostrils, the bronchia of the lungs, the larger left portion of the stomach, the gums, the ileum, the extremity of the rectum, and the external substance of the uterus and vagina. Hæmor-
rhages.

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2. Sanguine persons, or those of a soft spongy habit and tender constitution, whose vessels are turgid with blood and serum, are liable at all ages to hæmorrhages from different parts. Those of a choleric temperament, whose vessels are larger, circulation quicker, and habit more tense, are most exposed, in their earlier years, to hæmorrhages from the lungs. The sanguineo-melancholic are seized oftenest with hæmorrhoidal fluxes; and sanguineo-phlegmatic women, with bloody vomitings.

3. In childhood, hæmorrhages from the nose are most frequent; in youth, from the lungs; in maturer age, from the hæmorrhoidal vessels; and in an advanced age, from the urinary passages.

4. Hæmorrhages of all kinds are most frequent in the autumn and spring, particularly about the Equinoxes, and often return periodicaly at these seasons, some chiefly at the one, and some at the other. The spring disposes most to bloody apoplexies, or hæmorrhages of the brain; the autumn, to bloody vomiting, and bloody urine.

5. Those who have suffered in childhood copious and frequent hæmorrhages from the nose,
are

are always of a weak constitution, short lived and subject to various distempers ; in youth, to a phthisis pulmonalis ; in riper years, to hypochondriacal affections ; and in age, to gouty and nephritic pains.

Hæmor-
rhages.

6. A disposition to hæmorrhage is for the most part hereditary, and quickly becomes effective, from external causes exagitating the blood, as violent passions or exercise, hot irritating aliments or medicines, the imprudent use of purgatives, sudorifics, or baths.

7. Excretions of blood from a mere redundancy of the fluid itself, are salutary : those from a malignant acrid matter, as in some of the exanthematous fevers, are extremely dangerous : those from obstructions, induration, or corruption of any of the viscera, particularly of the liver, the spleen, or the lungs, are generally mortal, being apt to terminate in a cachexy, dropsy, the morbus niger of Hippocrates, or a hectic.

8. That a redundancy of laudable blood is the primary cause of hæmorrhages, seems an erroneous opinion. The robust and laborious, whose blood is dense, and of a good quality, rarely suffer hæmorrhages : but to those of a lax habit and sedentary life, where the serum is

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in over proportion, they are frequent. The blood discharged in immoderate hæmorrhages, has but a small proportion of red matter in respect to the serum; a sufficient evidence that the cause is rather a serous than sanguineous plethora.

9. Eruptions of blood from different parts are generally preceded by particular symptoms: from the nose, by a flushing and heat of the face, with a greater than ordinary tension and pulsation of the temporal arteries: from the uterus, by a lassitude of the body, pain of the back and loins, tension about the hypochondres, paleness of the face, roughness of the skin, and constriction of its pores: from the lungs, by an anxiety of the præcordia, difficulty of breathing, an undulatory painful weight about the diaphragm, flatulencies in the abdomen, and chilness of the extremities: from the stomach, by a tensive pain in the left hypochondre; from the hæmorrhoidal veins, by spastic strictures, flatulencies, languor, chilness, and pains in the os sacrum.

10. The immediate and direct cause of hæmorrhage appears therefore to be neither a redundancy, nor acrimony, nor tenuity of the blood; but an inequality or obstruction of its circulation,

tion, from the construction of some vessels, chiefly of those at a distance from the heart; by which the blood is prevented from returning by the veins, and propelled more copiously into other parts, where the small lateral vessels, which ordinarily carry only a thin lymph, are distended and at length opened. The contraction of the vessels arises sometimes from spasmodic strictures, and flatulent distensions of the stomach and intestines, as in the hæmorrhoidal flux to which hypochondriacal persons are subject: sometimes, as appears upon dissection, from an obstruction or induration of the viscera, particularly in the violent symptomatic hæmorrhages succeeding chronical diseases: thus, disorders of the liver, distinguished by a greenish or leaden colour of the face, are accompanied with frequent bleedings at the nose, especially on the approach of a dropfy.

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rhages.

II. The cure of hæmorrhages is therefore injudiciously attempted by large and repeated bleeding; though taking away a moderate quantity of blood, at the beginning, and as a preservative, is undoubtedly very serviceable. The rational method of cure consists, first, In the derivation of the impetus of the blood from the parts affected, by pediluvia, glysters, frictions, ligatures, warm cloths, fomentations, or baths :
secondly,

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secondly, In relaxing the spasmodic strictures of the nervous parts: and, thirdly, In lessening the quantity of serous humours, by gentle laxatives, the milder diaphoretics, and a slender diet.

CHAP.

CHAPTER I.

Of EPISTAXIS or HÆMORRHAGE from the Nose.

§ I. *General History.*

HÆMORRHAGES of the nose issue from the minute arteries distributed over the surface of the pituitary tunic, distended and opened by an inordinate afflux of blood to the head. The strong pulsation of the arteries of the neck and temples, redness of the face, swelling of the whole head, heat and dryness of the nostrils, are marks of this preternatural afflux: and the stricture of the skin and subsiding of the vessels in the lower parts, chilness, shivering, costiveness, pain or rumbling in the belly, and weariness of the limbs, evince that it is occasioned by a spasmodic constriction of the vessels in the extremities.

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This hæmorrhage is more frequent in childhood and youth, than in mature or advanced age; in males than in females; in those of a spongy habit and small vessels, than in the lean, whose

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whose vessels are large. It is often hereditary, and of all hæmorrhages the most apt to return. Those who in infancy have laboured under serious defluxions from the nostrils, eyes and ears, are subject after puberty to bleedings at the nose.

All frequent hæmorrhages denote an imbecility of nature; yet in plethoric habits they are often salutary. There are numerous examples of vertigo, scotomia, headach, phrenitis, and even convulsions and epilepsies, terminated by a bleeding at the nose, and produced by an imprudent suppression of that discharge. In inflammatory fevers, this hæmorrhage is generally critical, that disease being for the most part the offspring of a plethora. Those who have had frequent bleedings at the nose in infancy, are subject in youth to disorders of the breast, spitting of blood, pleurifies, peripneumonies, and even the pulmonary phthisis; in a more advanced age, to hæmorrhoidal fluxes, rheumatic, gouty, ischiadic and nephritic complaints. Profuse and lasting hæmorrhages of the nose, from violent spasms of the internal parts, preceded by a coldness of the extremities and faintings, generally terminate in death. Those which happen in exanthematous or malignant fevers, accompanied with a great depression of strength, are always dangerous: in dropies, cachexies,

or

or other chronical distempers from obstructions of the viscera, they are for the most part mortal.

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§ 2. *Method of Cure.*

Immoderate bleedings from a redundance and exagitation of the blood, which happen chiefly to young persons in the spring, from strong exercise or spiritous liquors; are to be treated with nitrous and acidulous medicines, and venesection. Spasmodic strictures of the nervous parts, which generally accompany profuse discharges, are abated by gentle opiates, the mineral anodyne liquor, and camphor in small doses; which last is particularly serviceable where the hæmorrhage is occasioned by exanthematous matter: to all these, nitre is advantageously joined. A revulsion may likewise be made by mild laxatives, as rhubarb with nitre; by emollient and carminative glysters; by bathing the feet and hands in moderately warm water; and by refrigerants and discutients, particularly an epithem of vinegar of roses, vinegar of rue, nitre, camphor, and oil of rhodium, applied to the forehead, the nostrils, and the neck.

§ 3. *Practical Cautions and Observations.*

1. Those who are subject to frequent bleedings at the nose, ought to avoid cold, particularly

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larly of the feet and head; and refrain from too full meals. A freedom of perspiration contributes greatly to the prevention of this and all other hæmorrhages: to promote that salutary excretion, infusions of veronica, milfoil-tops, and such like plants, may be used as tea.

2. Those who have suffered frequent hæmorrhages in youth, ought, after the cessation of them, to abstain from all strong commotions of the body, even from speaking with vehemence. I have known, in schoolmasters, almost irremediable disorders of the head, constant tingling of the ears, and even a paralysis succeed.

3. After profuse hæmorrhages, cold or a fright are particularly hurtful. From these I have known extreme stupor, weight of the head, pain of the eyes, weakness of sight, and giddiness brought on; and even a great debility of the whole body, and danger of an apoplexy. The more the body is exhausted of blood, the more are those causes to be avoided, which propel the blood from the external parts to the internal.

4. Cold astringent applications at the beginning do harm: by suppressing the discharge, they repel the blood to the lungs or the internal

nal parts of the brain, and thus endanger suffocation or an apoplexy. Pediluvia, glysters, and bleeding in the foot, if necessary, should be premised.

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5. Hæmorrhages from a redundance of blood, or the suppression or omission of customary evacuations of blood, natural or artificial, are never to be restrained by force. If they prove immoderate, the derivations already mentioned, and nitrous medicines with citron-juice, will be sufficient.

6. Nor are periodical hæmorrhages to be suddenly checked, either by external or internal means. I have hence known, in aged people, lethargies and apoplexies ensue.

7. Bleedings at the nose have been frequently cured, especially in bilious and choleric dispositions, by drinking cold spring-water, to the quantity of two or three quarts a-day, and keeping the body in a suitable warmth: by this means the orgasm of the blood is allayed, and for the most part a gentle sweat promoted. It is advisable therefore, for those who are subject to hæmorrhages, to use pure spring-water for common drink.

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8. In symptomatic hæmorrhages happening in exanthematous fevers, no other remedies are advisable than such as abate immoderate heat, and gently promote perspiration; as, a mixture of elder-flower water four ounces, distilled vinegar one ounce, crabs-eyes and diascordium each one dram, nitre one scruple, with a suitable quantity of syrup of wild poppies: two spoonful of this mixture may be taken every two hours, with the interposition, in malignant cases, of a powder composed of calx of antimony, camphor and nitre.

9. Those who in youth have suffered frequent hæmorrhages from the nose, are liable, on a cessation of them, to disorders of the head, eyes and ears, or even to epilepsy or phrenitis. In such cases, if the head and its vessels are full of blood, the hæmorrhage must be brought back, by forcibly thrusting up the nostrils a quill or a straw, or by a scarifying instrument. Recourse must be had to the same assistances in sanguineous or inflammatory fevers, where the blood is strongly propelled to the head.

10. Profuse hæmorrhages from violent affections of the mind, require a peculiar treatment. In those from passion, the remedies are, antispasmodic nitrous powders, with pure cold water

ter given successively: from grief, diaphoretics mixed with antispasmodics, the mineral anodyne liquor with one-fourth of volatile aromatic spirit, and a mild diaphoretic regimen.

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11. In cachectic habits, rhubarb, given repeatedly, by itself or with salts; in scorbutic ones, whey, with the interposition of rhubarb; are the most successful medicines.

§ 4. *Histories of Cases.*

1. A man above forty, sanguineo-phlegmatic, cachectic, accustomed to drink too freely of malt liquors and wines, fell into a jaundice; which was removed by rhubarb, aperients, and external discutients; but returned several times, accompanied at length with a very black colour of the skin, and a bleeding at the nose which could not be restrained: the blood oozed out constantly, day and night, thin, livid, and incoagulable: the strength was extremely depressed; the extremities always cold; the senses entire till he expired.

All profuse hæmorrhages in cachectic persons, from an obstruction of the liver or spleen, are full of danger. In the black jaundice in particular, I have often seen unrestrainable

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bleedings : in one person, the flux was from the gums.

2. A lady about thirty, thin and of a costive habit, complained during pregnancy, especially in the last months, of a flow continual heat, which greatly wasted her strength, with palpitations of the heart at times, and a pulse so weak as hardly to be felt : she was, she said, as if her heart had no strength, and floated in water. After delivery and a too sparing uterine evacuation, she was seized with a flux from the nose of thin blood, which did not coagulate. The hæmorrhage ceasing in a few hours, violent spasmodic symptoms succeeded, with extreme anxieties, despondency, and disorder of the senses ; which were abated by a return of the bleeding. Laxatives, glysters, pediluvia, frictions, nitre, and all the assistances that medicine affords (venesection excepted, to which she had a natural abhorrence) were tried in vain. Every cessation of the flux was followed by the spasms, anxieties, restlessness, and disorder of the mind ; and this alternately for about a fortnight ; when, quite exhausted by the loss of blood, she expired in the spasmodic paroxysm.

Though the hæmorrhage promised at first to be critical, and to supply the deficiency
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of the lochia, the symptoms that had preceded rendered it far otherwise: when pregnant women make great complaints, especially in the last months, of debility and internal heat, we may prognosticate an unfavourable lying-in. It is observable, however, that the bleeding proved always, so long as it continued, a solution of the other complaints.

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3. A young nobleman, florid and full of blood, who had suffered frequent hæmorrhages from the nose, had a more violent return, in which he lost by degrees six or eight quarts. After many medicines had been given without effect, cold water, with tincture of roses and syrup of barberries, was used for common drink: in a fortnight the bleeding stopt: after which the strength was recruited, and a dimness of sight, which the weakness had brought on, was removed by nutritious broths.

Young people, of a sanguine temperament and spongy habit, are very subject to hæmorrhages, and often lose prodigious quantities without much danger. A clergyman was subject for many years to an hæmorrhage from the nose, so profuse, that he sometimes bled five quarts in one day; the face still continuing red, and the pulse stronger than ordinary: medicines

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were of no service : if the flux was restrained by snuffing up spirit of wine, a difficulty of breathing succeeded. Even though the strength be very considerably depressed by the large evacuation, we are not to despair of relief, provided the viscera are not unsound, nor the blood impure or scorbutic. The drinking of plain cold water, without any acid, is here the principal remedy ; and may have place also in the hæmorrhages brought on by an exagitation of the blood from strong exercise, hot weather, spiritous liquors, or venereal appetites. The cold bath likewise may in these cases be of service.

4. A lady of 56, of a strong constitution, after omitting customary venesection for five years, fell into a fever, accompanied on the third day with a delirium, a slight bleeding at the nose, which gave no relief, and a gentle moisture on the skin. Nitrous and cinnabarine powders were given, and cold water, to the quantity of some quarts a-day. All the symptoms increasing on the sixth day, ten ounces of blood were taken from the foot ; on which the heat and delirium abated, and the pulse became slower, but an extreme languor remained, and the symptoms returned again, on the eighth day, with equal or greater violence. At length a bloody serum was discharged in large quantity from the anus
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and uterus ; by which the disease seemed at first to abate, but soon after increased. A singultus, which succeeded, was restrained by a glyster of cold water ; after which, the flux from the uterus returned, and the patient expired.

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On the seventh day, when I was called, I could see nothing to be done for a cure : the ferous discharge further confirmed that the case was now malignant ; for such a flux I have never known to have favourable consequences. Early bleeding might have been of use ; but it was here too late, and could serve only to restrain or prevent the hæmorrhage from the nose, which is the common solution of inflammatory fevers.

5. A Jewish lad of eighteen, of a sanguine constitution, was seized, in the measles, with a profuse bleeding at the nose, an extreme anxiety of the præcordia, and oppression at the breast. A mixture of decoction of hartshorn and elder-flower water, each four ounces, citron-juice half an ounce, coral one dram, nitre and diascordium, each two scruples, syrup of citron-juice half an ounce, being taken by a spoonful at a time, the eruptions in one night broke out, the symptoms abated, and the hæmorrhage ceased.

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The measles are not unfrequently accompanied with a bleeding at the nose, especially in plethoric persons; sometimes in women, particularly those of great sensibility and propensity to passion, with a bloody vomiting, or a flux of blood from the uterus. In these cases, and indeed in all the hæmorrhages attending exanthematous fevers, the flux is never to be restrained by cold substances, but by such as obtund the acrimonious matter and gently promote its expulsion: in this intention I have had frequent experience of the good effects of the mixture above prescribed.

6. A boy of eight, of a tender constitution, was seized with a quartan; which was often removed, and as often returned: at length the belly swelled, the face became livid, and frequent hæmorrhages from the nose were joined. An infusion of rhubarb in an alkaline and nitrous liquor, with bitter extracts, given in his common drink, made an effectual cure both of the fever and the other complaints.

The symptoms were here alarming: but obstructions and indurations of the viscera are not so easily formed in children as in adults; and if begun to be formed, they yield more readily to bitterish and saline medicines.

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From such complaints in an adult we may always prognosticate a cachexy and dropsy.

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7. A man of a spongy habit and sanguine temperament, had been subject from infancy to bleedings at the nose, chiefly about the Equinoxes. By venesection every spring and autumn, the hæmorrhage was prevented, only he had a headach coming on at the usual seasons, and going off spontaneously. The evacuation being omitted, he complained, in the beginning of spring, of a weight and pain of the head, with a redness and swelling of the face. Continuing, notwithstanding this, to exert his voice as a schoolmaster, he was seized with tingling of the ears, dulness of hearing, and a numbness of the right hand and foot, which accompanied him to the grave.

It appears from hence, that plethoric persons are liable, particularly at the Equinoxes, to spontaneous hæmorrhages, which may be supplied by artificial evacuations. To omit these, when grown customary, is extremely ill judged; that they weaken the strength, is a groundless suspicion.

CHAPTER II.

Of HÆMOPTYSIS or HÆMORRHAGE from the LUNGS.§ 1. *General History.*

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HÆMOPTYSIS consists in an excretion of florid, frothy blood from the lungs, with a cough.

It is not every spitting of blood that is to be called an hæmoptysis. Often blood falls from the nostrils into the fauces and lungs, from whence it is spit up again in clots; a tickling in the palate, and pain or weight of the head preceding. Sometimes also the sputum is tinged with blood from the fauces, or the inner branches of the aspera arteria, being eroded by acrid humours.

The true hæmoptysis, or hæmorrhage of the lungs, comes on at intervals, preceded generally by a shivering and chilness of the skin, particularly of the feet, a disappearance of the vessels
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in the hands, pain of the back, weariness and heaviness of the limbs, rumblings of the lower belly, costiveness, a sense of weight at the breast, and some difficulty of breathing. A tickling or itching is then perceived in the fauces, along the aspera arteria, with a hot undulatory motion, or ebullition as it were, in the right side: on which, thin, florid, frothy blood is coughed up, without pain; sometimes in small quantity, from a rupture of some of the lateral vessels of the lungs; sometimes copiously and impetuously, as if by vomit, from a burst varix or aneurism of the larger vessels.

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Hæmoptysis from a mere redundance or exagitation of the blood, has little danger. I have seen them return every month, after the cessation of the menses in pregnancy, and cease spontaneously on the re-appearance of the menstrual flux after delivery: I have seen them cease during gestation, return again on delivery, and continue for several years without inconvenience: I have seen also a harmless hæmoptysis in those who menstruated too sparingly. Of all hæmorrhages however there is none more dangerous or more apt to return: those who have once suffered a violent hæmoptysis seldom recover perfect health, unless a very strict regimen be observed, and not always, although it is: injuries

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ries of the lungs, from the continual dilatation and contraction of that viscus, very difficultly heal; and as the extravasated blood is scarce totally expectorated, its remains are apt to corrupt and bring on a hectic and consumption. It is most dangerous in old people, after long grief, where the abdominal viscera are obstructed, or the humours have a scorbutic taint. On dissection are found vomicæ, polypous concretions, aneurisms; the lungs overflowed with florid frothy blood newly discharged from an aneurism, or in great part corrupted by such as has long stagnated and become putrid.

§ 2. *Method of Cure.*

The primary indication is, to abate the orgasm or ebullition of the blood, by cold water, drank plentifully, but by little at a time, nitre in small repeated doses, whey, or liquors acidulated with spirit of vitriol, as the tinctura rosarum. I have known several examples of dangerous hæmoptysis stopped by cold water alone, after venesection: it answers best in young subjects, where a considerable internal heat is complained of: the cold liquor not only abates this heat, but if the body is kept moderately warm, occasions a salutary moisture on the skin.

A derivation of the blood from the lungs is to be attempted by temperate pediluvia, bathing the hands in warm water, gentle laxatives, tamarinds, prunes, rhubarb, glysters; but more particularly, if the patient be plethoric, by bleeding in the arm or foot: eight ounces or more should be taken away, and the orifice made large, for the more effectual revulsion.

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The spasmodic strictures of the small vessels, which promote the afflux of blood to the lungs, are to be relaxed by oily medicines, emulsions, and decoctions of hartshorn. In failure of these, recourse may be had to opiates, or a mixture of half a dram of white henbane-seeds, with an equal quantity of crabs-eyes, twelve grains of nitre, and one grain of camphor. With greater safety may be used a mixture of half an ounce of acrid tincture of antimony, or tincture of tartar, the same quantity of the mineral anodyne liquor, two drams of the bezoardic liquor of Buffius, and six drops of oil of mace: this medicine not only abates spasms, but by gently promoting urine and perspiration, diverts the blood from the breast.

The last indication is, to heal the injuries of the parts, and correct the acrid humours; so as to prevent a return of the same, or the accession
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of other disorders. The medicines which I have found most serviceable in this intention, are, (1.) A mixture of an ounce of distilled vinegar, with four ounces of simple waters, a dram of absorbent and restringent powders, and two drams of syrup of wild poppies; to be taken at thrice, with the addition, if the hæmorrhage has been profuse, of half a dram of prepared hæmatites. (2.) A decoction in ale, of daisies, red roses, chamomile-flowers, milfoil tops, each four pugils; faracens, consound, groundivy, dead nettle, veronica, fanicle, winter-green, each one handful; fennel-seeds, nutmeg, each two drams. An ounce and a half of these species may be boiled in two quarts of beer, both for simple spittings of blood, and for those which are complicated with a phthisis. (3.) Pills, of one part of the pil. de cynoglossa, and four of the pil. Becheri: about a scruple of the compound to be taken at bed-time. (4.) A powder, of calx of antimony one dram, animal absorbents four drams, nitre one dram and a half; of which a scruple is to be taken at a time, with twenty drops of the mineral anodyne liquor, and some antispasmodic water.

§ 3. *Practical Cautions and Observations.*

1. Where large quantities of blood are expectorated at short intervals, from the rupture
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of some considerable branch of the pulmonary artery, the Physician should beware of promising much, unless a suppression of the flux is obtained in three days. Nor should he pronounce too unfavourably; which, as I have often seen, intimidates the patient, and hastens death.

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2. An annual hæmoptysis, and those which arise from a suppression of the hæmorrhoidal flux, are generally accompanied with rheumatic pains in the breast, which are sometimes mistaken for pleuritic. Venesection in the foot, and a return of the discharge from the hæmorrhoidal vessels, removes at once both the hæmoptysis and the pain.

3. In sharp coughs, from acrid defluctions, with a tickling deep in the fauces, and an excretion at times of florid frothy blood mixed with mucus; it is sufficient, if there are no manifest signs of a plethora, to give emulsions, and balsamic pills, with a few grains of the storax pill. Agglutinants and astringents are to be abstained from; not the pulmonary, but the small branches of the bronchial artery being wounded.

4. When a profuse discharge threatens immediate danger, and internal remedies are insufficient to restrain it; recourse must be had to ligatures

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gatures on the limbs, which preventing for a time the return of the blood by the veins, the ruptured vessels more readily collapse and reunite. When the hæmorrhage ceases, the ligatures are to be slackened, not all at once, but successively.

5. As spittings of blood happen frequently from spasms, flatulencies, and other disorders of the first passages; these also must be considered in the cure, regard being had at the same time to the differences of constitution. In choleric young persons, of great sensibility, and prone to passion, subject at times to palpitations of the heart, and whose pulse is naturally large; abstain from carminatives, stomachics, volatile salts, and purgatives; and give only nitrous powders, gentle laxatives of manna, tamarinds and prunes, with whey, barley-water, or other diluents. Where the juices are tenacious, the viscera obstructed, the constitution cold and moist, and the habit spongy; balsamic pills, volatile spirits with tincture of tartar, mild carminative essences with carminative tinctures, are given with advantage.

6. Strong astringents are never advisable, especially at the beginning, or during the paroxysm; for though they retain the flux for a time,

time, yet they leave in the pulmonary vesicles clots of blood, which corrupting, lay the foundation of a phthisis or hectic. The milder astringents and corroborants are of use, particularly in the intervals, and at the end of the flux, for preventing a relapse: such are, solution of coral in orange-juice, made into a syrup; conserve of roses, with bole or hæmatites; an electuary of Peruvian bark, with watery extract of cascarilla, prepared amber, and nutmegs; infusions and decoctions of vulnerary and corroborant plants.

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7. Milk is of great service, if the stomach can bear it, and if taken by little at a time, but often. I have known true hæmoptysis restrained by goats milk, boiled with wild poppy-flowers, then mixed with half its quantity of water and a little honey; after which, the disorder was completely cured by starch used plentifully in food.

8. This disease is very dangerous to old persons, though the flux be but small. Never attempt here to suppress the discharge by strong astringents, or to procure rest by opiates; lest the strength be farther depressed, and putrefaction brought on, to which old age is particularly disposed.

§ 4. *Histories of Cases.*

1. A lady of thirty received a fright during the menstrual evacuation, on which the flux stopped, and a weight at the breast, anxiety of the præcordia, and palpitation of the heart, came on. At the next menstrual period, the discharge was small, preceded by a pain of the back and hypochondres, an oppression at the breast, and a sense of weight in the præcordia: a coughing up of blood was joined, which in four days went off. At every succeeding period, for nine years, a spitting of blood continued five or six days; constantly accompanying the uterine flux, disappearing with it during gestation, and again returning with it after delivery. It yielded nothing to any medicines, and was of no prejudice to health.

2. A young man of a tender constitution, and prone to passion, coughed up blood for some years every spring and autumn. After a violent fit of passion, a very profuse hæmorrhage returned regularly every day, at four in the morning, and nine at night: in a fortnight, he lost at least eight pounds of blood. Astringents, incrassants, pectorals, did no service. A complete cure was obtained, by volatile oily spirits given to twenty drops every four hours in black cherry water;
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animal absorbents, with nitre, diaphoretic antimony, cinnabar, and a little of the storax pill, at bed-time; emollient glysters with nitre; and tepid pediluvia.

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This disorder, like most periodical ones, seemed to be kept up by crudities in the first passages. Gentle evacuants and antispasmodics were therefore plainly indicated; and no benefit could be expected from the common pectorals, incrassants, or astringents. As volatile spirits exagitate the blood, they may be judged in these cases improper; but experience shews the contrary: I have often known hæmorrhages, from whatever part, restrained by this remedy, with expedition and safety. They should not, however, be given on the approach of, or during the fit, but in the remission.

3. A clergyman of twenty-five, full of blood and juices, after exerting his voice in the pulpit, spit up so much blood as filled a basin. A few doses of tincture of sulphur of vitriol, with opium, brought on an extreme anxiety of the præcordia, with danger of suffocation. Venesection, and a discutient mixture of some simple waters, distilled vinegar, crabs-eyes, nitre, and diascordium, relieved the complaints; but in a few days the hæmorrhage returned, preceded by a shiver-

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ing and chilness of the extremities, paleness of the face, and a sensation as of hot blood arising from the right side of the breast. Several remedies were used, and with some advantage; but the flux did not entirely cease, some spoonfuls of florid blood being still now and then discharged. On eating flatulent food, the roots of the sowbread, commonly called *earth-apples*, he was seized with violent gripes, which ending in a copious diarrhœa, put an end to the pulmonary hæmorrhage; whose returns were afterwards guarded against by vulnerary decoctions with mild balsamics.

This history affords an instance of the injury of astringents, and the utility of laxatives; and shews, that substances of themselves pernicious may sometimes by accident prove salutary.

4. A student in theology, of a melancholic temperament, tall and thin, was seized with a chilness of the whole body, particularly the hands and feet, a languor, nausea, anxiety about the præcordia, oppression at the breast, and a tickling to cough. In the night, an hæmoptysis came on: this continued for two days, and the other symptoms for six weeks, when a cure was obtained, which lasted for six years. The business

ness of a schoolmaster brought back the complaints: an antispasmodic powder seemed to give relief; but a languor remained, and, on returning to his office, the hæmorrhage returned: every day, for five weeks; he voided six or seven spoonfuls of florid blood, and in the intermediate time a viscid mucus mixed with pus. Venesection in the foot, and antispasmodics, had no effect: the anxiety, difficulty of breathing, loss of appetite and of sleep, continued: the pulse became unequal, quick, and weak; the extremities cold; and the strength so far depressed, that he could scarcely move or speak. It was from great solicitation that I ventured to prescribe in such desperate circumstances. Besides the water-gruel with fennel-seeds used for common drink, he was ordered at least a quart a-day (in the morning with milk, at night without) of a decoction of hartshorn-shavings three ounces, scorzonera-root two ounces, veronica, milfoil-tops, wild poppy-flowers, each one handful, burnt hartshorn one ounce, water three pints to two ounces of the species: at bed-time, a dram, in black cherry water, of a powder composed of crabs-eyes one ounce, red coral, mother of pearl, nitre, cascarrilla, each two drams, oil of citron-peel, and essential oil of nutmegs, each six grains. These medicines being continued for eight weeks, he lost every complaint, and recovered sleep, appetite, flesh, strength, and health.

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from the
Lungs.

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5. An unmarried lady of thirty-six, cheerful, of a sanguine complexion, after an irregular life for fourteen years, complained of the menses being sometimes immoderate, sometimes too sparing, and sometimes totally deficient. Hence arose frequent disorders at stomach; anxious pains, nausea, vomiting, with loss of strength; which for four years she endeavoured in vain to relieve by spiritous liquors, stomachic elixirs, and eating citrons. Being greatly weakened by long-continued grief, she was seized with an epileptic fit; whose returns were prevented by proper medicines; but inflations about the præcordia, with anxieties, eructations, retchings, and costiveness, continued. The menses now disappeared for four months, notwithstanding venesection in the foot thrice repeated, and the moderate use of balsamics. After fresh grief, she was seized with an hæmoptysis, and coughed up in three days some pounds of florid frothy blood. A vein was thrice opened in the foot; but a sudden epileptic paroxysm carried her off.

Symptomatic hæmoptysis (for such was this), in cachectic and splenetic persons, are generally mortal. In such cases, I have twice found, on dissection, the spleen large and full of corrupted blood, the vasa brevia of the stomach distended with black blood, and the stomach it-
self

self greatly expanded. The seat of the present disorder was also probably in the spleen and stomach.

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6. The brother of the foregoing lady, upwards of thirty, thin, pale, melancholy, who had twelve years before a spitting of blood from a fall, complained of frequent anxieties and oppressions of the præcordia under the bastard ribs, particularly on the left side, with a burning heat of the stomach; which he attributed to drinking cold liquor when heated by exercise. After marriage, and some notable affections of mind, he grew very weak: having nevertheless, contrary to custom, indulged vehement dancing, the disorder increased: in a fortnight, retchings came on, with a sudden hæmorrhage from the lungs endangering suffocation: convulsions acceded, of which in two days he expired.

The sudden and copious discharge denotes an injury of the lungs themselves, probably aneurisms of the small vessels. An epilepsy following an hæmoptysis, is, according to HIPPOCRATES, mortal, especially where much blood has been lost. In such cases, venesection does harm; and, instead of abating, increases the convulsion.

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7. A man of forty, cheerful, plethoric, of a spongy habit, accustomed to high living, after omitting venesection, using violent exercise, and indulging wine, coughed up several times florid frothy blood. Venesection in the foot, and nitrous powders with the mineral anodyne liquor, stopped the discharge; and infusions of veronica, balm, lungwort, sanicle, with fennel-seeds, and milk, completed the cure.

This may be called a simple hæmoptysis, from a redundance of blood, and the omission of customary evacuations. In such cases, the disorder, whilst recent, readily yields to the method above pursued; but if the cure be delayed, or medicines for dissolving the extravasated blood, and consolidating the ruptured vessels, omitted, a phthisis is apt to succeed.

8. A man of letters, upwards of fifty, after immoderate study and passion, omitting venesection, and drinking cold liquors whilst greatly heated, complained of languor and weakness; and having exerted his voice in the schools, spit up at times some ounces of blood. Cold water, whey boiled with wine, nitre and pectorals, somewhat abated the hæmorrhage; but a cough and hoarseness continued, appetite and sleep failed, the strength daily decayed, the flesh wasted, and a
flow

flow fever came on, distinguishable by a quick pulse and heat : he continued cheerful, till death unexpectedly closed the scene.

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The disease here was not the hæmorrhage, but a corruption of some of the viscera, perhaps the spleen. An extreme prostration of strength and appetite is almost a constant diagnostic of such distempers.

9. A young gentleman, sanguineo-choleric and weak, had been subject from infancy to various disorders, particularly acute ones; and at fourteen, from a fright in sleep, had a periodical delirium, which continued near two years, and was at length removed by bleeding every other day. He was now so habituated to venesection, that repetitions at least three or four times every year were necessary : at the same time an indispotion of the breast was brought on, producing frequent pleurifies, and violent spasmodic oppressive strictures. After a long journey, as a military officer, in cold wet weather, he was seized with a vehement cough, by which some florid blood was expectorated : in eight days, after some irregularities in diet, the hæmorrhage became so copious, that at least two pounds of blood were discharged in four days. By proper remedies the bleeding was stopped ; but the

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cough, weight at breast, difficulty of breathing, and weakening night-sweats, continued: the cough was rather dry than moist, only a little yellowish matter being expectorated: an intense pungent pain was complained of under the left shoulder-bone, at times affecting the whole breast with a vehement spasmodic stricture, so as to endanger suffocation, at length extending to the lumbar region, exasperated by coughing, so that the patient could scarcely walk: lying on the affected side increased the cough: in the evening a shivering and chillness of the extremities came on, followed in the night by no great heat, but profuse sweats, with a hard and frequent pulse: the urine was red, and deposited a copious white sediment. Medicines availed nothing: the hectic fever and pains increasing, a delirium came on, under which in eight days he expired.

On dissection, the whole substance of the lungs, particularly the left lobe, was found scirrhous, with sundry vomicæ full of thick glutinous pus: in the pulmonary artery was a polypus as large as the little finger: the lungs adhered strongly, not only to the pleura, but to the pericardium and diaphragm; whence probably proceeded the pain.

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10. A lady about fifty, of a very tender constitution, who had no menstrual evacuation for near ten years, and hence became subject to flatulencies, anxieties of the præcordia, perturbations of mind, and wandering heats, complained of a pain about the os sacrum and in the lower belly, with a burning and itching about the anus. These went off in bloody stools; but were soon followed by a pungent pain in the left side of the chest, with a tickling in the epiglottis, and a violent dry cough: on expectorating, at intervals, some spoonfuls of florid blood, all the symptoms disappeared. This paroxysm returned about every full moon for four months, and went off in the same hæmorrhage: further returns were prevented by opening a vein in the foot three days before the period, taking rhubarb and nitre twice a-week, with a draught of cold water at bed-time, and an herb-tea in the morning.

CHAPTER III.

Of HÆMATEMESIS, or BLOODY VOMITING.§ 1. *General History.*

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THE principal circumstance distinguishing hæmorrhage from the stomach, or hæmatemesis, is a rejection by vomiting of dark-coloured clotted blood, with a large quantity of phlegm.

It is generally preceded by a pungent tensive pain in the left hypochondre; and almost always accompanied with an anxiety and compressive pain of the præcordia, and stricture of the side. There is no hæmorrhage in which the patient is so apt to faint, especially when the blood is fetid or corrupted. On dissecting those who have died of this disorder, the spleen is found turgid with blood, and sometimes indurated; the vasa brevia in the upper left portion of the stomach, varicous, and distended with black blood, and the adjacent parts of the substance of the stomach itself corrupted. But though the vasa brevia are for the most part the source of the hæmorrhage,

morrhage, it may sometimes proceed from an erosion of other vessels: this may be supposed the case, when an acute pain of the stomach has preceded, and when the matter thrown up is acid, so as to benumb the teeth, and corrode the mouth and fauces.

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Persons of a slender habit and tender constitution, are the most disposed to this, and indeed to all internal hæmorrhages; the vessels being in these for the most part finer, and consequently more easily susceptible of dilatation and rupture, than in the opposite circumstances. Women, especially if costive, are particularly subject to bloody vomitings, about the time of the eruption, or on a suppression of the menses, from passion, a fright, or exposure of the lower parts to cold, or if the flux is endeavoured to be brought back by the stronger emmenagogues, or where disorders of the stomach from its suppression are attempted to be relieved by emetics, of which I have known some fatal examples. I have seen women also, after the cessation of the menses, exhausted with grief, complain long of a weight and pain in the left hypochondre, with weakness and loss of appetite, and at length carried off by a sudden impetuous vomiting of blood. The bloody vomitings which sometimes happen in pregnancy, particularly in plethoric persons, and where the stomach

has

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has been liable to frequent subversions about the middle of that period, are less dangerous; the blood being thin, and in small quantity, and seeming to proceed, not from the stomach, but from the branches of the small arteries in the œsophagus and fauces. In hard labours, I have seen immense quantities of blood thrown up, proving fatal; though I have seen also bloody vomitings in child-bed not mortal: but here the quantity was small, the patient was plethoric, and had imprudently omitted bleeding towards the end of gestation. We sometimes likewise meet with valetudinarians of the other sex, who, from a suppression of the hæmorrhoidal flux, complain of anxieties of the præcordia, cardialgic constrictions, cold sweats, alternations of cold and heat: if a discharge, upwards and downwards, of cadaverous blood, succeeds, they generally, in a few paroxysms, sink in a fainting fit. A less dangerous kind was frequent at Martisburg, chiefly among the common people both men and women: they vomited up some quarts of blackish brown blood, and were greatly weakened, but escaped with life. At the same time, spittings of blood were likewise common, and went easily off.

Bloody vomiting is of almost all hæmorrhages the most dangerous. If there be no fever, and the

the disorder proceeds from a plethora or suppressed evacuations, we are not to despair. But if a fever be joined; if the blood be corrupted, black or fetid; if the cause is a distension and corruption of the spleen, or an induration of the liver; if faintings supervene; we may presume that death is at hand. The danger is still greater if black, pitch-like, fetid stools are joined; in which case, the disease was called by HIPPOCRATES *morbus niger*.

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vomiting.

The pain and burning heat at stomach, generally complained of in bloody vomitings, are not to be confounded with an inflammation of that viscus; as not being accompanied with the coldness of the extremities, violent heat about the præcordia, thirst, fever, or the quick, weak, contracted pulse, which are characteristic of inflammations; and as being relieved by warm liquors and applications, which in inflammations cannot be borne. The black bloody stools proceed not from an extravasation in the stomach, but from some of the other viscera, or the small intestines, particularly the ileum: hæmorrhoidal excretions, which are likewise sometimes blackish, may be distinguished from these, by their not being accompanied with such violent spasmodic pains of the intestines, or prostration of the strength. This last symptom in the *morbus niger*

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niger arises not from the loss of blood, but from its putrefaction in the body.

§ 2. *Method of Cure, with Practical Cautions.*

1. In the paroxysm, if the patient be plethoric, and the blood is propelled from the exterior parts inwards, open a vein in the arm. The quantity of blood taken away must be cautiously proportioned to the age, strength, and the degree of repletion.

2. Where the blood is hot and exagitated, and the pulse strong and full, give refrigerating liquors, as common water, with a dram of nitre and half an ounce of syrup of wild poppies dissolved in every pint: if pains and spasms of the præcordia are joined, employ emulsions, with antispasmodic waters, a little nitre, and syrup of white poppies.

3. Emollient glysters, with nitre, are of service for relaxing spasms of the intestines, and procuring a derivation of the humours from the stomach.

4. Externally, I have found nothing more beneficial than anointing the præcordia and left hypochondre with a solution of a dram of camphor in an ounce of oil of almonds, mixed with
twenty

twenty drops of oil of rhodium ; and afterwards applying a warm bag of chamomile-flowers, elder-flowers, mint and wormwood, boiled in vinegar of roses or red wine.

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5. Profuse hæmorrhages, exhausting the strength, have been restrained by ligatures of the limbs, and by putting the hands and feet into cold water. After the discharge has ceased, the ligatures are to be untied not at once, but successively.

6. To prevent returns, give half a dram of rhubarb at bed-time twice a-week, either by itself, or with crabs-eyes, or twelve grains of the compound powder of amber, and half a grain of camphor : for common drink, pure water, in which iron has been quenched, or acidulated whey : for tea, an infusion of veronica, knot-grass, milfoil tops, liquorice, and fennel-seeds.

7. Bloody vomitings, from suppressions or obstructions of the menses, are to be treated with mild emmenagogues, frequent emmenagogue glysters, and bleeding in the foot.

8. In erosions of the stomach from acrid or acid substances, give absorbent earthy powders, and milk boiled with starch.

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9. In all bloody vomitings, from whatever cause, be cautious of opiates, which further depress the strength; and of astringent and vitriolic medicines, which, though they restrain the hæmorrhage, occasion a stagnation and putrefaction of the blood, and thus endanger an inflammation and sphacelus, or at least pave the way for a dropsy.

10. After the disease has been subdued, abstain from emetics, aloetics, unctuous and sweet foods. Though these last are very salutary as aliments, they contribute to a return of the hæmorrhage, by relaxing the lacerated vessels, and thus inviting an afflux of blood.

11. HIPPOCRATES'S treatment of the morbus niger deserves attention. "Give frequent purgatives, and if the season of the year permits, whey and milk: abstain from sweet, oily and fat foods, and use rather such as are cold and laxative: if the patient is not too weak, take blood from the arm: if the belly does not answer, inject soft glysters: refrain from debauches, venery, immoderate exercise, walking, acrid and salt foods, warm bathing. If these be complied with, the disorder will go off with age."

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or bloody
vomiting.

§ 3. *Histories of Cases.*

1. A girl of fourteen, tall, thin, pale, of a tender constitution, after a violent fit of passion, vomited up near a quart of blood: a fever succeeded, which being discussed, the menses appeared and continued regular. For some years after, she complained at times of a pungent pain in the left side, and a painful weight at stomach: from an antimonial emetic, the pain and oppression were greatly aggravated, anxious strictures of the præcordia came on, with an headach, and in three days an impetuous discharge of blood by the mouth, with coldness of the extremities, loss of speech, fainting and costiveness, followed by great heat and thirst. Next day the hæmorrhage disappeared, and only the common contents of the stomach were thrown up: in the forenoon she was always easiest, and in the afternoon worst. A draught of cold water, with a nitrous absorbent powder, and fifteen drops of the mineral anodyne liquor, being taken gradually every two hours; and an emollient glyster injected thrice, by which large evacuations were procured; the heat and anxiety abated, but the retchings continued, with some pain in the head. Emulsions with decoction of hartshorn and scorzonera, simple balm and mint-

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waters, and syrup of poppies, bags of mint, chamomile-flowers and elder-flowers boiled in wine, applied frequently to the præcordia; and five or six drops of the mineral anodyne liquor taken at times on sugar, completed the cure.

2. A young man had a quartan ague of long continuance; the suppression of which, by some empirical medicines, was followed by an ill habit of body, a livid leaden colour of the face, some swelling about the eye-brows, and a continual languor: he complained also at times, especially after flatulent food or any commotion of mind, of a pain in the left side; the belly hard and bound. After great exagitation, from walking and quarrels, he was seized suddenly with copious black vomitings, and an evacuation by stool of black pitch-like matter, extremely fetid: he frequently fainted, especially on sitting upright; and in twenty-four hours expired. On dissection next day, the stench was scarce supportable: the vasa brevia of the stomach were black and burst: a black fetid liquid in the stomach, and in the ileum, whose vessels also were black: the liver rather harder than natural: the spleen so hard as almost to resemble a cartilage; its outer whitish substance could scarce be cut; the little softer matter that remained within was full of black blood.

3. A

3. A woman of sixty, plethoric, accustomed to a sedentary life and gross food; complained, after long grief, of a weariness of the body, and pain in the left side. On riding in a carriage, in a cold air, she vomited up a large quantity of blackish matter; voided by stool a substance of the same colour, extremely fetid; and fainted at each discharge. The balsamum vitæ was applied to the region of the stomach, analeptic mixtures with distilled vinegar and crabs-eyes given internally, and on the abatement of the vomiting, rhubarb and manna. A truce was procured for thirty hours, but the vomiting, purging and faintings returned, and in two weeks she sunk under them. On dissection, the vasa brevia were found distended with black blood, and the same kind of blood plentifully extravasated in the ileum: the liver large and indurated: the spleen twice the natural size, so soft as to burst on pressure with the fingers, and discharge every where a dark coloured fetid blood.

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or bloody
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4. A considerable tumour arose in one night on the right arm of an infant of a month old: it quickly grew livid and hard: the child moaned continually, voided a black pitch-like matter by stool, and in three days expired. On dissecting the tumour, all the muscles and vessels un-

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derneath were found eroded, corrupted, putrefied, full of fetid blood: there was very little blood in the other vessels of the body: the blackish stools appeared to have proceeded partly from the stomach, and partly from the intestines, some of the same kind of matter being found there.

The rupture of the internal vessels seems to have been owing to the circulation of the blood being intercepted by the tumefied part: thus violent external bruises sometimes occasion bleeding at the nose, bloody stools, or other hæmorrhages: the black colour was an effect of putrefaction. The child's nurse had a venereal taint.

5. A gentlewoman of a tender constitution, after the suppression of the menses for three months, complained of a painful weight of the left hypochondre. She took thrice a-day fifty drops of elixir proprietatis with tincture of zedoary and amber, in Rhenish wine; and used for common drink malt-liquors strongly impregnated with hops. In three weeks she was seized with a bloody vomiting: the pulse very weak; the strength so much depressed, that, on raising her head, she fainted. Analeptics and corroborants
were

were given: but next day, after some further vomitings like washings of flesh with clots of brown blood, she calmly expired.

Hæmat.
or bloody
vomiting.

6. A lawyer above forty, of a slender habit, accustomed to the immoderate use of strong liquors, complained of loss of appetite, languor, wasting of the body, and a painful weight, at times, in the right hypochondre: the face was of a leaden somewhat ictical hue. After great exagitation by dancing, and drinking above six pints of potent Hungarian wine, he was seized with extreme anxiety of the præcordia, and soon after with profuse vomitings, at intervals, of brown blood partly concreted. A glyster of chicken-broth, oil of almonds, nitre and common salt, being several times repeated, the same kind of matter was voided by stool: in twenty-four hours, the discharge of blood, upwards and downwards, amounted to above three quarts. I gave an analeptic and lightly astringent mixture of simple cinnamon, mint, and balm-waters, aqua theriacalis, citron-juice, coral, species de hyacintho, and syrup of white poppies; and applied to the præcordia a liniment of oil of almonds, oil of nutmegs, and camphor; with a bag of mint, wormwood, red roses and chamomile-flowers boiled in red wine.

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The bloody vomiting ceased, but a great depression of strength, and total loss of appetite continued: at length the belly swelled, the upper parts wasted, and in two months he died.

CHAP.

CHAPTER IV.

Of the HÆMORRHOIS, or IMMODERATE HÆMORRHOIDAL FLUX.§ 1. *General History.*

DISCHARGES of blood from the hæmorrhoidal veins are not to be reckoned immoderate merely from their being plentiful; the quantity which is prejudicial in one person, or at one time, being salutary in others. Those only are morbid, which continue long, depress the strength, injure the appetite, digestion, and other functions, and threaten some chronical disorder.

Hæmorrhoidal
Flux.

This hæmorrhage is generally preceded and accompanied with a painful weight and oppression of the back and loins, sometimes a numbness of the legs, a constriction and slight shivering of the external parts and subsiding of the vessels, a somewhat hard and tense pulse, dryness of the mouth and fauces, small quantity, and often pale colour of the urine, a sense of

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weight about the anus extending to the perineum, weakness of the stomach, flatulencies in the belly, frequent stimulus to urine and stool, white mucous and bilious stools at times, and, in aged and weak persons, a falling down of the rectum. The blood is at first generally black and clotted; sometimes, from varicous vessels, it is discharged in pieces as large as the palm of the hand: afterwards it issues red, at length very ferous: sometimes a white mucus is evacuated, like the white of an egg. The quantity is often large: there are instances of one and of two pounds a-day. Often also, the flux is of long continuance; lasting for a month, and even forty-five days.

The external hæmorrhoidal vessels are subject to varicous swellings, which opened drop some blood. But the flux is chiefly from the internal vessels, which are productions of the splenic branch, and from the small arteries continued from the lower meseraic: hence a suppression of it is apt to give rise to disorders of the liver, spleen, pancreas, mesentery, and intestines. The principal discharge is from the arteries; though sometimes also, considerable quantities issue from the hæmorrhoidal vein at its anastomosis with the artery.

Immoderate

Hæmor-
rhoidal
Flux.

Immoderate hæmorrhoidal fluxes are full of danger. From their long continuance, the feet swell, the face becomes bloated and of a lurid leaden colour, the breathing difficult, and at length a cachexy, dropfy, or hectic fever, succeed. An unfavourable termination is the more to be apprehended, if a swelling of the liver or spleen, an inflation of the hypochondres and costiveness, a beginning cachexy or dropfy, have given rise to the disorder. If the hæmorrhage supervenes in a dropfy, from an induration of the liver, it is a certain prognostic that death is at hand.

§ 2. *Method of Cure.*

I. In plethoric persons, after the cessation for some time of a customary hæmorrhoidal flux, any extraordinary commotion of the mind or body, from spiritous liquors, too hot baths, or medicines, sometimes brings on a sudden profuse hæmorrhage, of longer continuance than usual. In such cases, the cure is to be effected by bleeding in the arm, or putting the arms in a warm mixture of wine and water; diluents and refrigerants, as cold water, chalybeate and other mineral waters, whey with lemon-juice, decoction of hartshorn with lemon, tinctura rosarum and nitre; anodynes and antispasmodics,

as

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as the mineral anodyne liquor, dulcified spirit of nitre, chamomile-water, syrup of red poppies; and if more powerful medicines are required, opium.

2. Where the flux continues long, with a depression of the strength and injury of the nobler functions, where the viscera begin to be affected, and the discharge is rather a serous fluid than consistent blood, give gentle laxatives and diaphoretics, rhubarb with currants and tamarinds, or, in bilious habits, cream of tartar with a little elæosaccharum of citron-peel; diaphoretic antimony, crabs-eyes and vinegar, aqua theriacalis, diascordium, the mineral anodyne liquor with one fourth of Buffius's bezoardic spirit, teas of milfoil, veronica, mouse-ear, and other like herbs, in bed, or a moderately warm room, are of service. Camphor, in small doses, as half a grain, is a medicine of great utility, especially when joined with nitrous and bezoardic powders: it abates the spasms which often support the hæmorrhage, and in some measure prevents the ill effects of anodynes and astringents.

3. In dangerous fluxes from an obstruction or swelling of the liver, spleen, uterus, or other viscera, such medicines should be chosen, if there remains any place for medicines, as may open
the

the obstruction, without too much exagitating the humours; Becher's balsamic pills with extract of rhubarb instead of aloes, nitre, diluents, the purging mineral waters. The prudent use of these waters for some weeks, with the interposition of the pills above mentioned, and a mild balsamic elixir sharpened with some chalybeate, promises greater advantage than any other kind of medicine. MONTANUS says, he has cured several by chicken-broth taken plentifully three hours before dinner: the broth will be more effectual, if sorrel, cichory-roots, and scorzonera, are boiled in it; or a chalybeate with watery extract of cascarilla taken in the morning, and the broth immediately after.

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rhoidal
Flux.

4. In laxities of the rectum, one of the principal causes of hæmorrhoidal fluxes, corroborants must be used; as the tinctures or other preparations of steel, bitters, balsamics, amber, cascarilla, red Saunders. These prudently exhibited will not fail in the intention, provided the disorder admits of cure.

5. Varicous vessels in the verge of the anus, oozing large and dangerous quantities of blood, without the patient going to stool, require also external astringents; decoctions of balauftines, red roses, myrrh, granate-peel, Peruvian bark,
in

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in red wine, applied with a sponge; or, if these fail, colcothar of vitriol, or puff-balls, are often useful. After the violence of the hæmorrhage is abated, epithems of mint, sumach, red roses, St John's-wort flowers, shavings of red saunders, cardamom-seeds, mastich and cascarilla, boiled in red wine, may be applied to the os sacrum, perineum, and pubes. The same decoction may be injected also with a syringe, for strengthening the intestines.

§ 3. *Practical Cautions and Observations.*

1. The cure of the hæmorrhoidal flux should be begun by bleeding, and gentle laxatives of cassia or rhubarb; after which, corroborants and mild astringents will take place more effectually.

2. Nitre, acidulous medicines, and other refrigerants, are of service in the beginning, and where there is great heat and commotion of the blood; but after the strength has been exhausted and the stomach weakened by a continuance of the hæmorrhage, they do harm, especially if the disorder is symptomatic, from an obstruction of the viscera.

3. Bleeding can rarely be directed without seeing the patient, the quantity taken away being of great importance. At the beginning, if the

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the body is full of blood, a considerable discharge may be made from the arm, by the way of derivation ; but when much has been spontaneously evacuated, we must take but little, and that with caution and at intervals.

4. HIPPOCRATES recommends one vein to be kept open after the others are stopped, lest a translation be made to the liver or the lungs, and a dropfy or consumption follow. Though this is meant of the external hæmorrhoidals stopped by uction or astringents, it holds equally in regard to the internals; the more so, as these are scarcely to be stopped, or the flux restrained, but by the more powerful internal medicines, which exhibited without great care and circumspection, never fail to do harm.

5. Astringents are improper at the beginning, and more so when the strength and blood have been exhausted : instead of any salutary effect, they are apt to bring on, especially in weak persons and those of great sensibility, spasmodic affections, convulsions, faintings, extreme anxieties of the præcordia, with a tremor and palpitation of the heart. Where the flux must be restrained, it should not be done by force, nor by large doses. Diluents, temperants, mild laxatives, particularly asses milk or sweet whey, with some liquid chalybeate, should be subjoined.

6. If

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6. If a suppreſſion of the flux is followed by anxieties and inflations of the præcordia, reſtleſſneſs, and oppreſſion at the breaſt, the hæmorrhage is to be invited back by gentle ſtimulants and laxatives, emollient glyſters and ſuppoſitories.

7. Great caution is requiſite alſo in the uſe of opiates; which given imprudently, may be productive even of madneſs. The beſt opiate is Wildeganſius's pills, by which hæmorrhages from violent pains and ſpaſms under the firſt vertebra of the loins may be ſafely reſtrained.

8. A ſtrict regimen is eſſentially neceſſary, as no medicines will avail without it. Groſs, flatulent, ſaline, ſtimulating foods, fruits, ſpiritous liquors, ſtrong exerciſe, and commotions of mind, muſt be ſtudiouſly avoided. For common drink may be uſed water, whey, decoction of red ſaunders with maſtich and cinnamon, or juleps of decoction of hartſhorn and ſyrup of citron-juice, with ſome drops of the oil, or ſome ounces of the diſtilled water, of citron-peel. The ſame regimen ſhould be continued, for preventing relapses, with bleeding three or four times a-year, a laxative once a-month, the proper uſe of mineral waters, or chalybeate milk.

§ 4. *Histories of Cases.*

1. A gentleman of sixty-three, corpulent and robust, had for several years an almost monthly discharge from the hæmorrhoidal vessels, without inconvenience. After long grief and concealed passion, the flux ceased, the face, before florid, grew yellowish and flaccid, and the eyes swelled. A cachexy being apprehended, the Pyrmont-waters were drank very plentifully, without any proper regimen in diet or manner of life. A profuse flux of pure blood from the anus ensued, which could not be restrained by nitrous powders or balsamic pills: the feet grew œdematous, the belly swelled, the strength failed, the breathing became difficult, the upper parts wasted, and at length he expired.

2. A Jew, subject in youth to bleedings at the nose, and afterwards to spitting of blood, was seized in his fortieth year with an hereditary hæmorrhoidal flux, which returned almost every month, and was sometimes, from more than ordinary commotion of the body in travelling, very plentiful: some years after, it proved both copious and lasting; and affected the strength, appetite, and digestion. Sundry medicines were used without relief; which at length, however, was obtained from

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from a tincture drawn from regulus of antimony and salt of tartar, with half a dram of camphor dissolved in every ounce, given to twenty drops every morning and evening in some cold water.

Though common prejudice attributes to camphor a heating quality, experience shews that it occasions rather a sense of coolness, though taken in the dose of a scruple. It has been given with great success in inflammatory and malignant cases; and in hæmorrhages also it is very serviceable, both by an anodyne and corroborant virtue, especially if mixed in small doses with other medicines.

3. A girl of nineteen, who had never been blooded, subject at times to an immoderate flux of the menses, had bloody stools for some days, without pain or uneasiness. After violent passion, she voided by stool a large quantity of pure blood, by which the strength was greatly depressed. The flux abated; and from a draught of cold water, stopped. Extreme anxieties of the præcordia succeeded, with a sense of constriction, as if the heart was convulsed: the limbs grew cold, the face red, the veins in the head inflated, the pulse strong and quick, with a degree of hardness. On taking a powder composed of diaphoretic antimony, crabs-eyes, nitre and cinabar,

nabar, with an infusion of milfoil-tops, and the mixtura simplex with saffron, she grew better.

Hæmor-
rhoidal
Flux.

4. An officer in the army, upwards of forty, robust and full of blood, had a salutary hæmorrhoidal flux for several years. On exchanging Rhenish wine for Pontack, the flux in a few months ceased, and was followed by intense pains of the loins and belly, depression of the strength, loss of appetite, watchfulness, and quickness of the pulse. Potions of rhubarb, tamarinds, and currants, not only opened the belly, but brought away large quantities of black clotted blood, with much relief. The bloody discharge continuing longer than the strength could support, an electuary of conserve of roses, species de hyacintho, amber, crocus martis, and syrup of pomegranates, was continued for a week; and he recovered.

5. A secretary of state, about fifty, of a corpulent and spongy habit, was subject for some years to anxious cardialgic pains, and strictures about the præcordia, particularly in the night, costiveness, flatulencies, pains of the loins, and a difficulty of making urine, which frequently shewed some gravel. Various domestic remedies for the stone were made use of; among which was the spiritous water of juniper-berries mixed with the rob. The symptoms were ex-

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asperated: violent spasms and flatulent pains about the hypochondres and belly came on, with a coldness of the extremities, and restlessness: emollient and discutient glysters gave no relief. A quick pulse and internal heat succeeding, the pains abated, but the belly remained swelled and painful to the touch; and the disorder having continued for a month, the appetite and strength failed. Becher's pills, with some doses of mercurius dulcis, were given to no purpose. A flux came on of greyish black corrupted fetid matter by stool, without gripes, accompanied with faintings at times, and an extreme loss of strength, under which he sunk.

6. A widow lady, upwards of fifty, accustomed to high living and a sedentary life, full of blood and juices, complained long of weariness and languor, and at length fell into a sleepy disorder, from which she could not be awaked. A vein was opened in the foot, and some ounces of cold water given every hour: in two days, five or six quarts had been got down. A stimulating glyster being then injected, a large quantity of blood came away, at first thick, afterwards thinner: in twenty-four hours, upwards of five quarts were voided. The sleep went off, the strength gradually returned, and by lightly astringent cordials and a glyster of cold water, she perfectly recovered.

C H A P.

CHAPTER V.

Of the MENORRHAGIA, *or* IMMODERATE
UTERINE HÆMORRHAGE.§ 1. *General History.*

BY immoderate uterine hæmorrhages are understood, not those which are merely plentiful, for such are often a salutary evacuation of redundant blood; but those which are accompanied with an injury of the animal functions, loss of strength and appetite, a weight at stomach, an ill colour of the face, a quick languid pulse, slow heat, œdematous swellings of the feet, turbulent and unrefreshing sleep. The flux sometimes happens at the menstrual period, and appears an increase or protraction of the natural discharge: sometimes it returns twice or oftener in one month: in child-bed or abortion, it happens sometimes before, and sometimes after delivery. It is generally preceded and accompanied by a tension and inflation of the hypochondres, a painful weight and oppression about the loins, sometimes a sense of coldness, a

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rhage.

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chilness of the extremities, subsiding of the vessels, pale colour of the face, quick pulse, internal heat, costiveness, and small quantity of urine. The blood is sometimes thin, florid, and issues impetuously, particularly after abortion, from the retention of pieces of the secundines keeping open the orifices of the vessels; sometimes, where the menstrual flux has disappeared for some months, clots like flesh, of the size of a small egg, are voided with the blood: in the first days after child-birth, in slender and plethoric persons, the blood is often coagulated and black; in cachectic habits, and where the flux has continued long, it is thin and watery, or ropy; in scorbutic, it is fetid and corrupted, and voided with pain. In young women, a fluor albus often follows the hæmorrhage.

In cacochymic and scorbutic habits, and those infected with a venereal taint, where the viscera are unsound, the liver, spleen, or meseraic vessels obstructed with thick blood, these hæmorrhages are very difficult of cure, and not without danger; the impurity of the juices and cachectic indisposition, as well as the weakness of the strength, increasing more and more. Profuse hæmorrhages before child-birth, where the fœtus is dead, threaten death to the mother; which can be prevented only by speedy delivery,
either

either from manual assistance, or an extraordinary strength of nature. Hæmorrhages from violence in the extraction of the secundines, are also very dangerous; as are likewise those from pieces retained, which concreting into masses called *molæ*, constantly disturb the menstrual evacuation, and render it immoderate.

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§ 2. *Method of Cure.*

1. In hæmorrhages from a redundancy of blood or menstrual obstructions, venesection is the principal remedy: blood may be drawn plentifully before the hæmorrhage has come on, more sparingly after it has continued for some time.

2. In those produced or kept up by an orgasm or ebullition of the blood, the greatest benefit is to be expected from diluents and refrigerants, as cold water drank plentifully, either by itself, or with nitre, or with spirit of vitriol and syrup of red poppies. Sweet, acidulous, or chalybeate wheys, are likewise of great service; and also the purging waters with asses milk, particularly in persons of a tender constitution and great sensibility, in scorbutic habits, and those who are wasted by a slow heat.

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3. In hæmorrhages from spasms and pains, as in child-birth, hypochondriacal and hysteric cases; give gentle anodynes, the mineral anodyne liquor with nitre, antispasmodic powders, teas of wild poppy-leaves, milfoil-tops and chamomile-flowers; or in urgent cases, opium.

4. The vitious serum, with which the blood in these disorders generally abounds, is to be evacuated by gentle purgatives, as manna, rhubarb, cassia, tamarinds, cream of tartar; and diuretics, as whey, purging waters, sal diureticus, solution of crabs-eyes, antimoniated nitre, tincture of tartar mixed with spirit of tartar and dulcified spirit of nitre.

5. Violent hæmorrhages, occasioning faintings, must be checked by astringents; such as compound powder of amber, hæmatites, bole armenic, terra japonica, with the mineral anodyne liquor, and a small quantity of the anodyne essence. A plaster of hogs dung and strong vinegar, or a cold cataplasm of plantane and knot-grass-leaves, roses and balaustines, boiled in vinegar of roses, applied to the pubes, or the frogspawn plaster, with alum, oil of henbane, and camphor, to the lumbar region, are often of great use.

6. After the hæmorrhage has ceased for some time, the uterus and other viscera must be strengthened,

strengthened, to prevent a relapse, particularly in ferous and cachectic habits, by a few doses of Becher's pills, our balsamic visceral elixir with chalybeate tinctures, broths with juice of plantane, cichory and sorrel. For drink may be used cold water, in which red-hot iron has been several times quenched. The purging waters also, drank by themselves for some days, are of much service. Every thing that may too much exagitate or increase the quantity of blood, should be avoided.

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rhage.

7. As abortion and child-birth particularly dispose to immoderate hæmorrhages, especially if the uterus is not sufficiently cleansed; that intention should be carefully provided for, by giving, two or three days after delivery, and repeating about the middle of lying-in, a few doses of Becher's pills, or others composed on the same plan, of bitter extracts, temperate gummy resins, extract of rhubarb, and a small proportion of aloes. Instead of pills may be taken an infusion of rhubarb, balm, rosemary, pimpinella-root, agaric, currants, orange-peel and citron-peel, in balm-water and wine.

§ 3. *Practical Cautions and Observations.*

1. Though the profuse hæmorrhages, to which plethoric women are subject on abortion; may

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be prevented by early bleeding in the arm; yet when much blood has already been lost, and the strength exhausted, it is safest to forbear. In this case, it is advisable to keep both arms, for half an hour, in warm water mixed with a little wine, in order to procure a derivation of the blood to the external parts; which is more effectually obtained by this method, than by cupping the breasts, recommended by HIPPOCRATES.

2. Women who have laboured for some time under these evacuations, whether of a bilious or phlegmatico-sanguine temperament, are rarely cured without laxatives. The best of these is rhubarb, mixed with cream of tartar, or sharpened, in a redundance of ferous humours, with one-third of mechoacan. Mild balsamic pills, on the plan of Becher's, with a small proportion of aloes, are also proper: their virtue is improved by the interposition of nitrous saline powders.

3. In tender bilious and cachectic habits, I have known a mild emetic, as ipecacuanha, given every month, with advantage, for preventing these disorders. The cause of many chronic uterine indispositions is not unfrequently lodged in the first passages, which ought therefore to be effectually evacuated.

4. The

4. The stronger astringents must be used with great caution ; and also narcotics, which have place neither in the beginning of the disease, nor when the strength has been exhausted, and the patient is ready to faint, from a profuse discharge. I have often seen the flux increased by astringents : I have seen also obstinate chronical disorders brought on by their immoderate use ; particularly cachexies, dropries, slow and hectic fevers, constant oozings of lymph from the uterus, with a swelling and hardness in the right side of the groin.

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Hæmor-
rhage.

5. HEURNIUS strongly recommends a powder, composed of henbane and white poppy-seeds each one dram, hæmatites and red coral each half a dram, camphor half a scruple, to be taken in doses of half a dram every morning and evening. I have known this medicine given with success, particularly in high commotions, where the pulse was quick and strong, and the patient had no sleep ; in which cases, half a dram of nitre may be usefully added. Where the strength is exhausted, and the pulse hardly to be felt, it is improper ; for I have known the free use of henbane-seeds bring on a disorder of the senses.

6. Chronical hæmorrhages from obstructions of the viscera, are seldom successfully cured without

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out mineral waters. These are to be assisted by mild balsamics; and in the intervals of the flux, by subastringent baths.

§ 4. *Histories of Cases.*

1. A widow about seventy, of a thin habit and sedentary life, accustomed, from the cessation of the menses to the sixtieth year, to venesection twice a-year, which was then left off, and subjected from that time to spasmodico-flatulent complaints, swellings of the external hæmorrhoidal veins, and bloody urine, was seized suddenly, after long grief, with a profuse hæmorrhage from the uterus, which, notwithstanding the highest analeptics and corroborants, continued for some months; at length the blood became intolerably fetid, a slow fever and extreme depression of the strength succeeded, and her miseries ended in a calm death.

2. A lady of twenty-eight, of a florid complexion, full of blood and juices, in the third month of pregnancy, had a small oozing of blood from the uterus for a fortnight. Vehement dancing brought on so profuse an hæmorrhage, that six or seven quarts of florid blood were discharged in a few hours, and faintings came on. In such an extremity, all other means having

having failed, I had recourse to a doubtful and hitherto unattempted remedy. A linen cloth, properly twisted, and well impregnated with a solution of caput mortuum of vitriol, was thrust, as far as it could be, into the sinus uteri: the flux soon stopped, and by analeptic medicines and aliments the patient was recruited. On the third day, the cloth was extracted with difficulty, and brought with it a fleshy lump, with a little fluid blood. Nothing further followed; the woman by degrees recovered, conceived again, and was a joyful mother.

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Hæmor-
rhage.

3. The wife of a Jew, about sixty, of a tender constitution, mother of many children, supposed to be in the third month of pregnancy; had, without any manifest cause, a plentiful hæmorrhage from the uterus, and voided a fleshy mass about the size of the fist. The flux of pure blood continued, with great loss of strength: having received a fright, she seemed constantly ready to faint; palpitations of the heart came on, with tremblings, great anxieties of the præcordia, difficulty of breathing, coldness of the extremities, and contractions of the fingers and thumbs at times, as in epileptic and fainting fits: the symptoms were exasperated by sweet smells, and somewhat alleviated by fetids. Though given over by the by-standers, I did not despair.

By

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By a carminative glyster, and pills composed of assafoetida, camphor, castor, saffron, extracts of chamomile and milfoil, given every three hours, she was cured.

4. A woman above fifty, of a choleric-melancholic temperament, prone to passion, had an uterine flux for a year, sometimes sparing, and sometimes plentiful; with a slight fever at times, sometimes every day, and sometimes every third day; by which she was much reduced. After various medicines had been used in vain, the flux was at length stopped by chalybeates; but in its place succeeded a fluor albus, with an œdematous swelling of the feet, difficulty of breathing, loss of appetite, and constipation of the belly. By the frequent use of our balsamic pills, acrid tincture of antimony, with Bussius's bezoardic spirit, and the mineral anodyne liquor, the fluor and swelling were removed: the former soon returned again, and was stopped by fumigations of tacamahaca, amber, ivory shavings, and flowers of sulphur; by which, and the continuance of the foregoing medicines, she perfectly recovered.

5. A lady above thirty, of a tender constitution, was subject to retentions of the menses for some months, followed by profuse discharges, at first

first of clotted, and afterwards of thin blood. By proper medicines, they became regular for some time; but a suppression for three months was again followed by an immoderate flux, with which were voided some hard fetid masses, and a large quantity of water. Some time after, a kind of mola, or fleshy cellular mass covered with a white pellicle, came away, with an excessive hæmorrhage, accompanied with a great loss of strength, want of appetite, weakness of the stomach, nausea, anxiety, pain of the back and limbs, and want of sleep. Balsamic pills were taken at bed-time for three nights successively, and an aperient saline powder in the morning, to promote their operation: after five days, she was bathed, in the morning, in a warm infusion of mint, balm, organum, clary, sage, and lavender-flowers, with a proper quantity of alum and potash. By this process repeated thrice, and bleeding every two months, the disorder was completely removed, and the lady became a mother of several healthful children.

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Hæmor-
rhage.

6. A gentlewoman above forty, who had often suffered immoderate uterine hæmorrhages, was seized, after a fright, with a very violent one, which yielded nothing to bleeding in the arm, Stahl's balsamic pills, antispasmodic powders, essence of milfoil, chalybeate tinctures, or the

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the pil. è cynoglossò. The flux continuing, fetid clots of blood coming away, and the belly being obstinately bound; analeptic mixtures, a chalybeate tincture with sal diureticus, and magnesia alba were given, and bleeding in the arm repeated; still without effect: the blood drawn from the vein was ferous, and of a lixivial taste: the strength failed; tinglings of the ears, vertigo, headachs and faintings came on. I then ordered a mixture of distilled vinegar, crabs-eyes, diaphoretic antimony, spiritus nitri dulcis, syrup of citron-peel, and some simple waters, to be taken twice or thrice a-day; an epithem of mint, balm, rosemary, organum, red roses and cascarilla, boiled in red wine, to be applied warm to the region of the pubes; the hands to be put several times a-day into warm water mixed with red wine; and for common drink, a decoction of faunders, mastich-wood and cichory-root. All the symptoms went off, and the woman perfectly recovered.

7. A woman of twenty-four, drinking the Caroline waters for an hystERIC disorder, was seized with a profuse hæmorrhage from the uterus, which lasted some weeks, accompanied with a debility and languor, loss of appetite, and lurid colour of the face. The flux was restrained by Heurnius's powder; but a great anxiety of the præcordia

præcordia succeeded, with a cardialgia, threatening suffocation. Many remedies were used without effect. An emetic brought up a large quantity of viscid greenish matter, and gave some relief; but soon after the hæmorrhage returned. The balsamic pills, given in doses of a few grains every day, with the interposition of the cachectic chalybeate antimony and antimoniated nitre, a chalybeate tincture, and a temperate decoction of woods and roots used for common drink, made an effectual cure.

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Hæmor-
rhage.

8. A lady of forty, of a tender and thin habit and great sensibility, had been afflicted for near half a year with an almost continual uterine flux, and taken a variety of medicines without relief. On drinking the Seltzer waters, with a proper regimen, and the interposition of a laxative at times, the hæmorrhage gradually ceased, and she recovered perfect health.

CHAPTER VI.

*Of the HÆMATURIA, or HÆMORRHAGE from
the URINARY PASSAGES.*

§ 1. *General History.*

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PHYSICIANS are sometimes deceived in judging of bloody urine. Where the quantity of blood is large, as a pound or more, which sometimes happens, the case is obvious: but small quantities are with difficulty distinguished; the urine being often of a bloody colour, when there is no blood in it; and often very unlike blood, blackish or brown, when there is. Urine tinged with blood may be known by its staining linen red, appearing thickish and opaque, and depositing a blackish red clotty sediment, which is not redissolved by heat: whereas such as owes its red colour to other causes, gives no stain to linen, looks clear and transparent, and yields a cinnabarine sediment, which on applying heat is taken up again, the liquor becoming clear as at first.

There

Hæmat.
or bloody
Urine.

There are different sources of hæmorrhage from the urinary passages. Pure blood, discharged suddenly, plentifully, and without pain, may be judged to proceed from the substance of the kidneys: dark blackish blood, in smaller quantity, with pain or burning heat in the region of the pubes, from the bladder. The bladder is a part of exquisite sensibility, and ruptures of its vessels commonly bring on very violent symptoms; intense pains, faintings, difficulty of breathing, a low, small, frequent pulse, nausea, anxieties of mind, and cold sweats. When blood issues from the ureters wounded by a large or rough calculus, an acute pain in the loins and the ilia, difficulty of urine, and other symptoms of the stone, will discover the cause. Sometimes an hæmorrhage happens from the vessels of the bladder, or rather of its sphincter, distended and opened, in the same manner as from the hæmorrhoidal vessels: in this case, the flux is periodical, a retention of the blood occasions a pain about the pubes, the blood drops away sometimes without urine, and is never equally mixed with the urine, as that always is which comes from a higher source.

Bloody urine is to be distinguished from the drippings of blood which happen independently of the urine, sometimes from the prostate in vi-

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rulent gonorrhœas, and sometimes from the integuments of the penis. I have known examples of pretty plentiful hæmorrhages from the penis continuing for some weeks, preceded by a kind of tensive pain in the groin and thighs: the blood in this case drops from a branch of the external hæmorrhoidals which reaches to that part.

Hæmorrhages from the kidneys, and from the sphincter of the bladder, are often critical and salutary, and return at certain intervals. In plethoric men, both young and aged, from the omission of customary venesection, or hæmorrhoidal obstructions; in women of eighty, hale and of high life, who had neglected to supply by bleeding the evacuations which nature had made formerly from the uterus; I have seen these discharges continue for a considerable time, in no small quantity, without any ill consequence. I have often observed also, in young men after the blind piles, those of an advanced age after the suppression of an hæmorrhoidal flux, the urine of a brown colour like decoction of coffee, doubtless from a translation of the blood from the hæmorrhoidal vessels to the bladder.

These hæmorrhages, however, although they may at first appear salutary from their supplying

plying other evacuations, are far from being without danger; not only as they are apt to return, and to exhaust the strength; but as, from errors in diet, or the imprudent use of styptics, they may bring on an inflammation and corruption of the parts. Often a clot of blood falling from the kidneys, lodges at the oblique insertion of the ureter into the bladder, and occasions a troublesome and obstinate ischuria. Sometimes also the blood coagulates in the bladder itself, and, adhering firmly to the sphincter, excites violent pains with a suppression of urine: the same symptoms happen likewise from the vessels of the sphincter being distended with blood, as the external hæmorrhoidals are frequently.

Hæmat.
or bloody
Urine.

The most dangerous kind of bloody urine is that where the kidneys or bladder are deeply ulcerated, and where pus is voided with intense pain. We must be careful, however, not to mistake mucous and glutinous sediments in the urine for pus, which generally does not subside, but swim. Such a matter we often find discharged in a hundred times the quantity that the substance of the kidneys could afford: it appears to be a mucous substance secreted by the relaxed glandular coats of the bladder and urethra, or by the prostate glands.

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§ 2. *Method of Cure.*

1. In bloody urine from a redundancy of blood, venesection is the principal medicine, both for the prevention and cure. During the paroxysm, blood should be taken from the arm, pretty plentifully, if the disorder is recent, and the strength will admit, so as to answer the purposes both of derivation and evacuation. Where hæmorrhoidal suppressions threaten these hæmorrhages, it is more advisable to open a vein in the foot; and also, where the urine appears bloody, after spasmodic colics and violent gripes, as it sometimes does, from the blood being accumulated in the intestinal vessels, and denied an exit by the hæmorrhoidal. Where the hæmorrhage is periodical, a vein should be opened two or three hours before the attack.

2. If the disorder be occasioned by an ebullition or exagitation of the blood, from strong exercise, passion, spiritous liquors, hot stimulating foods or medicines, take away a little blood, though the patient should not be plethoric, and give nitrous powders, and other refrigerants, as whey, barley-water, common water by itself, or mixed with half its quantity of some purging mineral water, decoction of hartshorn or of scor-

zonera,

zonera, or small beer, impregnated with a due proportion of the tincture of roses or daisies made with the vitriolic acid. The marine acid is improper in these disorders, on account of its volatile acrimony it is injurious to the lungs and kidneys.

Hæmat.
or bloody
Urine.

3. The belly should be kept open both in the paroxysms and intervals, costiveness contributing greatly to support or bring on the hæmorrhage. This is never to be attempted by the stronger purgatives, large doses of salts, or the smallest of aloetics, which will infallibly exasperate the disease; but by currants impregnated with solution of rhubarb, powdered rhubarb with cream of tartar, and emollient glysters.

4. The relaxed vessels in the kidneys are to be strengthened and gently constricted, or injuries of their substance repaired, by decoctions or infusions of the vulnerary herbs, agrimony, ground-ivy, horsetail, milfoil, golden rod, comfrey-root, &c. which may be occasionally mixed with milk, or sweetened with Prussian honey, which is extremely agreeable to the kidneys. Emulsions, with bole armenic, are also serviceable.

5. In erosions and exulcerations of the ureters and bladder, the primary aim must be, to cor-

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rect the acrimony of the humours; without which, no abatement of the pain or consolidation of the wounded parts can be expected. The principal medicines for this purpose are, Ferne-lius's syrup of marshmallows, Forestus's decoction, and that recommended against bloody urine by Mynsicht; the vulnerary decoctions above mentioned, with the addition of acacia-root and cherry-tree gum; and a powder of marshmallow-root, liquorice, spermaceti, the four cold seeds, white poppy seeds, lycopodium and saffron, with a proper quantity of sugar-candy.

6. In difficulties of urine, from clots of blood obstructing the passage, nothing is more effectual than warm water drank plentifully, and a warm bath. Warm water may also be injected into the bladder, for diluting acrimony, and dissolving coagulations. If spasms arise, with a total suppression of urine, give emulsions with crabs-eyes and diaphoretic antimony, and powders of spermaceti, crabs-eyes, and nitre: apply externally bladders of warm liquor; and loosen the belly with manna or an emollient oily glyster.

7. The more temperate mineral waters have been found, from repeated experience, remarkably serviceable in all disorders, even inveterate ones, of the urinary passages, especially if mixed with

with asses milk. Milk itself is in these cases a principal medicine: RIVERIUS and others boast of having often cured bloody urine with this remedy alone, excepting that, in violent discharges, a dram of bole armenic was added to every dose. HIPPOCRATES also directs milk, where the urine resembles the juice that runs from roasted beef, to be drank forty or fifty days, with whey at times to purge.

Hæmat.
or bloody
Urine.

§ 3. *Practical Cautions and Observations.*

1. The patient should drink plentifully of diluting liquors, as clean well-fermented small beer; from which SYDENHAM assures us, that he found great benefit in his own case, in preventing bloody urine from a calculus. Sweet wines are proper; wines or malt-liquors of the acid kind do harm.

2. Exercise, so salutary and necessary in many chronical disorders, is here improper. Scarce any thing contributes more to the continuance or return of the hæmorrhage, than quick movements or concussions of the body, particularly from riding: even an exertion of the voice in discourse, for any considerable time, has been found hurtful.

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3. To restrain these hæmorrhages, whether critical or symptomatical, by strong astringents, is extremely prejudicial; the coagulated blood, pent up in the vessels, giving rise to an inflammation, ulceration, or corruption of the part. In very profuse hæmorrhages, indeed, attended with great loss of strength, Sylvius's mixture is allowable: it is composed of five ounces of simple waters, half an ounce of distilled vinegar, red coral, crabs-eyes, and terra sigillata, each one scruple, liquid laudanum three grains, sweetened with syrup of coral or of comfrey.

4. External applications to the region of the pubes are of considerable service, particularly the coagulum aluminosum, and plasters with alum or sugar of lead and a little camphor.

§ 4. *Histories of Cases.*

1. A lady of a sanguineo-choleric temperament, was subject almost from infancy to catarrhs, coughs, and headaches, particularly in spring and autumn, and after the cessation, at fifty, of the menses, which had always been copious, to calculous pains, violent spasms, tensions and pains of the belly, with costiveness, and large discharges of watery urine. Intense pains of the hands and feet succeeded at times,
and

and always proved a solution of the calculous ones. After the use of various lithontriptics, she made bloody urine, without any pain of the loins or limbs: the flux increased from the slightest motion: medicines given for restraining it, constantly brought on tensive pains of the left hypochondre, nausea, flatulencies, and headaches: bleeding did harm, and mineral waters no good. After the disorder had continued for near a year, I ordered bleeding, either by venesection or scarification, every two months; a decoction of red Saunders, scorzonera-root, each one ounce, cream of tartar two drams, sugar one ounce, in two quarts of water, with the addition of three drops of oil of citron-peel made into an elæosaccharum, for common drink; an infusion of milfoil-tops, red poppies, St John's-wort flowers, veronica, mouse-ear, and fennel-seeds, for tea; a decoction of rhubarb and manna at every change of the moon; and the Seltzer waters to be drank for two months in the spring, with thrice their quantity of asses milk. From these medicines, in a few months, she obtained great relief.

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Urine.

2. A man of sixty, after the cessation for a year of an hæmorrhoidal flux to which he had for some time been subject about the equinoxes, had an itching eruption all over the body, particularly

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cularly about the anus; for the cure of which, he took various purifiers of the blood, as tincture of antimony and tartarized tincture of sulphur, with a temperate decoction, above a month; and applied externally an ointment of balsam of sulphur, sugar of lead, and oil of almonds. The cutaneous malady disappeared; but the urine became thick and bloody, and deposited a sediment of blackish blood: he had no pain in passing urine, but an intense one at stool, with a violent strangury. By bleeding in the foot every month; laxative infusions of manna, rhubarb, raisins, and nitre; and decoctions of whole oat-meal, cichory-roots, wild poppies, and milfoil-tops; the disorder gradually went off.

3. A gentleman of fifty, florid, corpulent, robust and healthful, who had never been blooded unless once or twice, on getting up in a morning, made bloody urine, without much alteration in health. On boiling some of the urine, scarce half was evaporated, when the crassamentum appeared coagulated like whites of eggs, but of a blackish colour, like blood itself treated in the same manner. After the hæmorrhage had continued for two days, some blood was drawn from the hand; a decoction of oats, scorzonera and cichory-roots, wild poppies, nitre and honey, used for common drink, instead of the strong malt-liquors

liquors to which he had been accustomed; a precipitating powder taken with some drops of the mineral anodyne liquor; and an infusion of veronica, agrimony, knotgrafs, milfoil-tops, red poppies, and fennel-seeds, for tea. The disorder went off; and bleeding every quarter of a year prevented any further returns.

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4. A gentleman of fifty, accustomed to high living and a calm life, complained of a weight and pain in the loins. Some reputed lithontriptics were taken, without relief: the pain increased, and affected the right thigh. A powder, the basis of which was millepedes and salt of amber, being taken for a month at the several changes of the moon, the urine became more plentiful, but at last bloody. Medicines were given for restraining the hæmorrhage, with success; but in its place succeeded an intense burning heat in the os sacrum, a constipation of the belly, and a pain in the thigh, reaching to the foot. By venesection in the foot affected, and the temperating decoction above described, he recovered.

5. A gentleman of seventy-six, hale and robust, scarce ever afflicted with any sickness, after riding harder than usual, voided blackish brown urine, with some clots of blood. By rest, the urine became of the natural colour and consistence;

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ence; riding or other exercise constantly brought on a like discharge. After the disorder had returned at times for several months, though without any prejudice to health, and resisted fundry medicines; I ordered three or four ounces of blood to be taken away every month; a decoction of china-root, scorzonera, hartshorn-shavings, red saunders, and itarry-headed anise, for common drink; a powder of rhubarb, crabs-eyes and sugar, to be taken occasionally; and abstinence from spiritous liquors and the high foods to which he had been accustomed. In some weeks, he entirely lost the bloody urine; but two years after, he was carried off by a marasmus.

I have met with two other cases similar to this both in the symptoms and termination. In one, the bloody urine returned at intervals, without any apparent inconvenience, for ten years and more, before the slow fever and marasmus came on.

6. A Jew of fixty, who had been tormented for some years with calculous pains, voided a large stone with some blood; after which, he was seized with an exquisite pain in the region of the pubes, a total suppression of urine and constipation of the belly, which prevented his
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getting any sleep or rest : a catheter was introduced, without effect. After four days, a bladder of warm liquor applied to the pubes, large quantities of infusions of veronica, dead nettle and liquorice, drank daily, emollient oily glysters several times repeated, gave no relief : the symptoms increased, the extremities grew cold, a continual deep sleep came on, and the patient seemed ready to expire : as often as he came a little to himself, he complained of extreme anxieties threatening suffocation. A solution of two ounces of manna in six ounces of acacia flower-water, with half an ounce of oil of almonds, twelve grains of nitre, and half a dram of essence of orange-peel, being taken at twice, and repeated in four hours ; eight plentiful stools succeeded, and he filled several chamber-pots with urine, at first like washings of flesh. By stomachics, corroborants, and a proper regimen, he perfectly recovered.

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or bloody
Urine.

CHAPTER VII.

Of HÆMORRHAGE from the BRAIN.§ 1. *General History.*

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UNDER the appellation of *hæmorrhage from the brain*, we comprehend that very fatal disease which is stiled the *sanguineous apoplexy*, and which arises from an effusion of blood in the brain, in consequence of a rupture of the vessels there, happening without any external violence. In this affection, both the vital and animal actions also, are very speedily extinguished.

That this often depends on hæmorrhage within the brain, arising from a rupture of vessels, is abundantly proved by dissections. For, on these it is discovered, that blood is effused to a greater or less quantity, sometimes between the cranium and dura mater, sometimes between the dura and pia mater, and still more frequently between the pia mater and brain. Often also it is lodged in the cavities or ventricles of the brain,

brain, and sometimes at its basis. By dissection likewise, it appears, that the blood-vessels on the membranes and cortical part of the brain, are frequently distended, sometimes with liquid, sometimes with coagulated blood, forming as it were an aneurismatical appearance.

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By the compression thus given to the brain, not only is the secretion and distribution of that subtile fluid through the nerves, essential to sense and motion, impeded, but the circulation of blood through the brain in general is disturbed and interrupted; hence both animal and vital actions languish, and in a short time are totally extinguished.

Those who are affected with this disease, fall suddenly to the ground: they are in an instant deprived of all power of thought and reflection, of all sense and motion. Every member becomes flaccid: the tongue swells, the mouth hangs open, and not unfrequently neither feces nor urine are retained: the cheeks obtain a peculiar red and florid colour: the face swells, and there is often a manifest turgescency of the vessels about the head, particularly on the temples, and often a hæmorrhage takes place from the nose, the mouth or the ears: the eyes are distended and prominent, and there takes place
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an uncommon flow of tears : the heart beats very strongly : the pulsation of the arteries also is at first strong, but afterwards becomes languid and slow. Respiration is difficult, and attended with a peculiar stertor, which is to be ascribed to the air neither being properly admitted nor expelled ; and the scene is often terminated by vomiting and convulsion, with stridor dentium.

This disease is induced by many different causes, particularly by affections of the mind, as anger and terror, by violent coughing excited from irritation of the fauces by a crumb of bread or the like, by the venereal orgasm, or by the suppression of usual evacuations. But besides such causes, an unhealthful and preternatural constitution of the air is also to be ranked among the number : hence the observations of LOMMIUS and others prove, that apoplexy has sometimes occurred as an epidemic disease.

This disease is probably in every case preceded by a weakness of the vessels and membranes of the brain ; for, while these preserve their tone, the causes mentioned above will have but little influence. This debility is sometimes original or hereditary ; hence the disease is observed to prevail in certain families. But it is frequently also induced by different irregularities in after life, particularly by gluttony and ebriety.

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§ 2. *Method of Cure, with practical Cautions
and Observations.*

As this disease is so sudden and dangerous, immediate recourse must be had to medicine while there is any hope of safety. The patient must be placed in a temperate situation, in an intermediate posture between supine and erect. The inferior extremities are to be carefully defended against cold, and even fomented. But the principal part of the cure must be accommodated to the cause of the disease; and attention is particularly to be paid to the congestion of blood in the head, with a diminution of the moving power in the vessels there. It is therefore necessary, that the impetus of blood to the head should be diminished, and that vigour should be restored to the vessels, for renewing the motion of the blood which has been interrupted.

For obtaining the first of these ends, bleeding has, in all ages, been reckoned a very efficacious remedy; and it ought, without delay, to be performed in the beginning of the disease. But there have been many disputes with regard to the best mode of blood-letting. Some have advised arteriotomy; and where a skilful Surgeon

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can be had, it promises much advantage. More frequently venesection is advised. But here also differences have occurred, with regard to the place where blood-letting is to be performed. Some advise it, from the veins in the arm, others in the forehead, a third set, in the nose, and a fourth, under the tongue. Some have strongly recommended blood-letting from the occipital veins. But as the trunks of these veins are situated very low, deep scarification, with cupping, has been advised, on the back part of the head. Among all the modes of blood-letting, however, a free discharge, by the jugular veins, is to be preferred; as by this means, the most immediate depletion of the head is obtained.

In blood-letting, the following circumstances are principally to be attended to. It should be performed as soon as possible after the attack, and before the vessels have been so much dilated as to acquire an atonic state. It should be performed as near as can be to the seat of the affection. The orifice should be large, that the discharge may be free. The quantity discharged must be accommodated to the fulness of the vessels, and the state of the pulse. But in every case it must be considerable, and in many even frequent repetition is requisite.

Besides

Besides blood-letting, stimulant injections, operating briskly, are often also of great service in making derivation from the head. Here, however, the more drastic cathartics are not to be employed. These with a saline impregnation, as sal gem, sal ammoniac, Glauber's salts, and the like, are to be used. And they may be improved by the addition of carminative articles, as rue, sage, chamomile or lavender.

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Different articles, with the view of restoring vigour to the vessels, and renewing circulation, may be used both externally and internally. The volatile alkaline salts, either in a fluid or solid state, should, in different ways, be applied to the internal membrane of the nose: stimulant cataplasms, whipping with nettles, and blisters are to be applied to different sensible parts of the surface, particularly to the soles of the feet. Recourse has sometimes even been had, with advantage, to the application of actual cautery.

Internally, even when the power of swallowing is not lost, or when, after having been lost, it is again restored, spiritous and volatile medicines are not to be employed; but those remedies are to be used which possess an analeptic, and at the same time a discutient virtue. What

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I have most frequently employed with advantage, is a mixture of distilled vinegar, with the spiritus cornu cervi succinatus, diaphoretic antimony, cinnabar and crabs-eyes. And to this, with the view of giving a gentle stimulus to the nervous fibres of the stomach, I have sometimes added a small proportion of emetic tartar, not, however, to such an extent as to excite vomiting.

As hæmorrhage from the brain is not only a dangerous disease, but, although cured, readily returns, it is an object of the utmost consequence to prevent such accessions. With this intention, blood-letting is always useful, particularly about the equinoxial seasons. And with those accustomed to the hæmorrhoidal flux, such a discharge is to be artificially promoted, both by fomentations and frictions, and likewise by the application of leeches to the neighbourhood of the anus. Above every thing else, a regular discharge from the belly is to be supported by gentle measures. No dependence whatever can be put upon the apoplectic balsams and waters which some have highly extolled. And without a regular and temperate course of life, all other means of prevention will be totally ineffectual. Immoderate repletion, from variety of food, strong inebriating wines, and violent exercise,

ercise, after eating, are to be shunned. Nor should he who is afraid of this complaint go to bed soon after supper, or lie with his head in a very low posture. He should remain in bed but for a moderate length of time, and should preserve, as far as possible, the utmost tranquillity of mind.

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§ 3. *Histories of Cases.*

1. A corpulent and plethoric nobleman, in his fiftieth year, who had for some time been affected with slight palsy, had recourse, without any medical advice, to the use of the Caroline waters, both externally and internally. As he had neither been prepared by bleeding nor purging, when he went into a very warm bath, he was suddenly deprived of all his senses, both external and internal. To this succeeded very quick respiration, with convulsive heaving of the breast. The pulse was strong and hard. The face flushed. Recourse was had to blood-letting and sternutatories, but without effect; for in five hours he expired. After death, a considerable quantity of blood and bloody serum flowed from his nose for upwards of twenty-four hours.

No hot bath requires greater caution than that of the Caroline waters. For, from the

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principles which they contain, they produce a strong constriction of the surface, and force the blood from the external to the internal parts. Here, by the imprudent use of them, a rupture seems to have been produced in the vessels of the brain, as appears from the bloody discharge afterwards taking place by the nose. And it is probable that the sternutatory, from the agitation produced, accelerated the death of the patient.

2. A lady in the fiftieth year of her age, of a sanguine constitution, and delicate frame, had always been liable to an immoderate menstrual discharge. This, in her forty-ninth year, being retained, from the age to which she had arrived, she became much affected with anxiety, tightness at the præcordia, sense of weight in the limbs, vertigo and heaviness of head, with unfound and interrupted sleep. On the approach of winter, all these symptoms were so much aggravated, that she consulted a Physician, who ordered volatile saline medicines, and carminatives of the essential oils. He likewise directed a purgative powder, consisting of a scruple of the extract of jalap, and six grains of vitriolated tartar. From this she had six stools, not without severe gripes, and during the ensuing night was seized with apoplexy: her pulse and respiration,

respiration, however, remaining unaffected. Blood was immediately let, and an acrid glyster injected; and by means of these she recovered her senses. Still, however, there remained inability of speech, and pain and weakness of the head. With the view of carrying off these, and preventing a relapse, the purgative was repeated by the practitioner who had directed it. But she had not taken it an hour before her apoplexy returned, and she soon afterwards expired.

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Plethoric females are particularly liable to sanguine apoplexy, upon the cessation of the menstrual discharge; and nothing has a greater effect, as inducing it, than purgatives, operating violently with severe gripes. This is particularly observed to be the case with the resin of jalap, for it is readily retained in the plicæ of the stomach and intestines.

3. A celebrated divine, not fifty years of age, of a sanguine and florid habit, to dispel melancholy arising from some peculiar accidents, had recourse to the more free use of wine than he had been accustomed to. This produced loss of appetite and impaired digestion, attended with frequent eructations. His strength began to fail, and he was affected with great anxiety and un-

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easiness at the præcordia, while at the same time he still continued to be distressed with melancholy thoughts. In this situation he fell suddenly to the ground, with a total loss of all his senses, his pulse and respiration, however, remaining unaffected. In the space of two hours, by the aid of proper remedies, he recovered considerably; but still complained of torpor, languor, and weakness, particularly of the right side, and was much affected with loss of memory. He had recourse to the Caroline waters, where, by moderate drinking of the most temperate spring, he obtained considerable benefit. But, in his return, having indulged in wine and company, and being afterwards exposed to cold, he became affected with difficulty of breathing and anxiety. To obviate these, he had recourse to diaphoretic powders; from the use of which, a scarlet eruption was produced over the whole surface of his body, attended with severe headach. For the removal of this, recourse was had to copious bleeding from the foot; but this soon produced anxiety at the præcordia, with coldness of the extremities; and the scarlet eruption suddenly disappearing, he was attacked with a fit of apoplexy, attended with stertor, a strong and unequal pulse, and a tumid and livid appearance of the countenance. In the space of eight hours he expired.

From

From the above case several useful pathological remarks may be deduced. Thus it appears, that, in a man even of a sanguine habit, the immoderate use of wine, employed to counteract mental affections, may give rise to hypochondriacal complaints. It appears, that, by great exertion of mind, conjoined with melancholy, a disposition to apoplexy may be induced. And, lastly, it appears, that, from the repulsion of a scarlet eruption, by copious evacuation, such spasmodic affections were produced, from the matter being thrown inwardly, as to give rise to a rupture of some blood-vessels in the brain.

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PART

PART II. SECTION II.

OF PAINS AND SPASMS OF DIFFERENT KINDS.

CHAPTER I.

Of CEPHALÆA, or HEADACH.

§ I. *General History.*

THE seat of pain in the head is most frequently the pericranium, or the membrane which immediately covers the skull; sometimes the cutis itself, particularly its interior surface contiguous to the pericranium; sometimes also the dura mater, which communicates with the pericranium through the futures; and sometimes the production of the pituitary tunic, which lines the sinuses of the frontal bone. The other membranes, immediately investing the brain, as the pia mater and arachnoides, seem little adapted

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to be the seat of pain, as no elastic fibres or nervous branches are distinguished in them.

Pains in the pericranium are generally acute. Sometimes the whole membrane is affected, and in this case the disorder is termed *cephalæa*: a pain of some particular part is called *cephalalgia*; of one side of the head, *hemicrania*; confined to a small spot in the crown, in hysteric women, *clavus hystericus*. The *cephalæa* is a very exquisite pain, with violent exacerbations from the slightest causes, insomuch that the patient cannot bear either motion, or noise, or light: in some, the sensation is like that from bruising or distension; in others, as from thumps of a hammer.

An accumulation of blood or serum in the cavities of the os frontis, occasions an obstinate, violent, fixed pain, continuing day and night, in the forehead, and towards the root of the nose. Sometimes an abscess is formed, and a discharge of some spoonfuls of thin, yellow, fetid pus, from the nostrils, proves a solution of the pain.

Pains seated in the integument of the brain are accompanied with a redness of the eyes, vertigo, stupor, forgetfulness, and dulness of hearing. In acute diseases, they threaten a phrensy or convulsions, especially if the pain is of the
pulsatory

pulsatory kind; in chronic ones, a palsy, hemiplegia, or sleepy distempers. Sometimes a portion of lymph is extravasated in the ventricles of the brain: in this case, a continual pain is complained of in all the internal part of the head: evacuations and abstinence from drink give relief.

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Headachs from an immoderate afflux of blood, are distinguished by a redness, tumidness, and heat of the face, turgidness of the vessels, dryness of the nostrils, strong pulsation of the temporal and jugular arteries: the pain is acute. In those from a collection of serous humours, the pain is obtuse, with a sense of weight, chiefly in the forehead: sometimes there is such a heaviness of the head, that the patient can scarcely raise it up: sometimes an œdematous tumour appears, particularly about the crown; the pulse being at the same time weak, and the face of a livid hue.

Headachs are often symptomatic; as before the eruption of the measles and small-pox; in intermittent fevers; from menstrual obstructions; from indigestion, and crudities in the first passages. These last are distinguished by eructations, flying heats, an exacerbation of the pain from flatulent foods, and an alleviation from vomiting

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miting and other evacuations, and stomachics. Venereal headachs come on in the night: they are generally confined to some particular part; and frequently raise a swelling.

Headachs are not always without danger. Violent continual pains, which have their seat within the skull, preventing sleep, and accompanied with a fever, are not unfrequent presages of a phrensy: if the pain comes on suddenly, in hypochondriacal and melancholic persons, especially after passion, with a difficulty of hearing and internal pulsation of the vessels, but no fever, it prognosticates madness. A sudden very acute pain of the head, followed by a tingling of the ears, weakness of the knees, difficulty of walking, and slowness of speech, threatens an apoplexy, or hemiplegia of the opposite side. Those who suffer frequent headachs in youth, are liable to gouty disorders in age.

§ 2. *Method of Cure.*

The general indications are, in accumulations of blood and humours in the head, to discuss, or procure a derivation of them to other parts; to relax spasmodic strictures of the membranes of the head impeding the circulation; to correct and expel the offending matter; to strengthen
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the head and nervous system by proper remedies and a strict regimen.

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In pains from an immoderate afflux of blood, the principal remedy is venesection, which should be performed near to the part affected, as under the tongue, in the forehead, in the external jugulars, or by leeches behind the ears: in very plethoric persons, some blood should be taken from the foot a day or two before a vein is opened in the head. It is advisable also previously to evacuate the first passages, by glysters, or an infusion of manna and rhubarb, with some aperient salt, as cream of tartar or the sal catharticus.

The orgasm of the blood is to be restrained by sedative mixtures of simple waters, diaphoretic antimony, nitre, burnt hartshorn, cinnabar, and syrup of white poppies; emulsions, with nitre, and a little camphor dissolved in oil of almonds. An epithem of vinegar of roses and rue, each half an ounce, nitre two scruples, oil of rhodium fifteen drops, and camphor six grains, dissolved in spirit of roses two drams, applied to the forehead with a double linen-cloth, is often serviceable.

Lasting pains, with a numbness and heaviness, from an accumulation of serum, will not yield to bleeding

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bleeding or gentle laxatives, and require the more powerful attenuants and evacnants, as pills composed of ammoniacum, sagapenum, myrrh, aloes, extract of black hellebore, resin of jalap, mercurius dulcis, cinnabar, each half a dram, extract of saffron, powdered castor, salt of amber, each fifteen grains. A scruple of the mass may be made into twelve pills, six to be taken at night, and six in the morning, to be repeated again in three days, the patient in the mean time abstaining from solid foods, and only drinking weak broths. After due evacuation, corroborants and diuretics are to be subjoined: in this intention, I have often given, with great success, a mixture of acrid tincture of antimony four parts, essence of amber and Bussius's bezoardic spirit, or spirit of tartar and the mineral anodyne liquor, each two parts: this may be taken twice or thrice a day for a week or longer. Exercise, strong frictions, diuretic foods and liquors, are proper.

If these fail, recourse must be had to blisters. For this purpose, I employ a mixture of an ounce of melilot plaster, with a dram of cantharides, and some grains of camphor: a piece about the size of a dollar being applied to the nape of the neck, and occasionally renewed, a copious discharge of serum may be kept up for a length of time, without any inconvenience. In violent
pains,

pains, with an apparent swelling, from serum stagnating under the cutis, WEPFER applies a vesicatory all over the head in form of a cap, which produces a large discharge of serum, without raising a blister.

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In violent pains confined to some particular spot, from matter fixed deep in the membranes, CHESNEAU strongly recommends the acrid leaves of meadow crowfoot beat in a mortar, and applied to the part on a perforated plaster. This plant seems to have a similar effect to moxa, which is also held in great esteem by many eminent physicians, in these kinds of pains. I have often employed in such cases with good success, a mixture of equal parts of volatile salt of sal ammoniac, and powdered mustard-seed.

In pain and weight of the head from a coryza or mucus detained in the nostrils, frequent smelling to the volatile aromatic spirit, or mild stertutatories of marjoram, betony, marum, flowers of benzoin and cloves, are proper.

Chronical headachs, from a corruption of the juices, as venereal and scorbutic ones, require medicines adapted to the cure of those disorders; purgatives, decoctions of the woods, with crude antimony; a diaphoretic powder, composed of

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cinnabar,

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cinnabar, ceruse of antimony, volatile salt, nitre, each ten grains, camphor, half a grain, to be taken for one dose, with some proper decoction after it.

Hemicranias, particularly periodic ones, have their cause generally in the first passages, which must first be evacuated by purgatives and emetics; after which, corroborants and stomachics are to be subjoined. In headachs from menstrual or hæmorrhoidal obstructions, such medicines are to be exhibited as may procure a regularity of those salutary discharges.

§ 3. *Practical Cautions and Observations.*

1. In exquisite acute pains, particularly in the forehead and frontal sinuses, as they greatly depress the strength, and may even bring on dangerous symptoms, faintings, a fever, inflammations, or disorders of the senses, we must endeavour at once to procure relief from the pain, without waiting for the removal of the cause: but before the exhibition of an opiate, the belly should always be unloaded by a glyster. Among externals, I have found none more effectual than a liniment composed of expressed oil of nutmegs half an ounce, resin of storax and resin of the cortex thymiana, each one dram, extract of saffron,

saffron, balsam of Peru, each half a dram, oil of rhodium twelve drops. This composition is to be spread on a small piece of leather, and applied to the temples. After the abatement of the pain, give a gentle cathartic; and then proceed to treat the disease according to its nature and cause. In acute and almost intolerable pains, in the cavities of the nostrils and bony sinuses of the head, besides the above mentioned anodynes, it is advisable to scarify the nostrils, or procure an hæmorrhage by thrusting up a stiff straw.

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2. If an acrid humour is extravasated under the pericranium, and begins to render the bone carious; incision, after all other methods have been tried in vain, must be the last resource; and both here, and in paronychia from a like cause, it is accompanied with remarkable success. If the caries has extended to the diploe and the inner lamina of the skull, the trepan will be the only remedy.

3. In all headachs, from whatever cause, the cure is to be begun by a glyster; to which, in plethoric cases, venesection is to be subjoined. After which, such other remedies are to be made use of, as the case may require.

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4. The opening of the temporal arteries has frequently given immediate and almost surprising relief, after other means had been tried in vain. I have never used this remedy, and would not detract from its merit; but apprehend, that opening the temporal vein will be more successful: this may be done without danger near the ear, at the articulation of the jaw.

5. In all pains, where the strength will not admit of bleeding, temperate pediluvia are of service; and also frictions of the feet with rough clothes, and stimulating applications, as horseradish-root with salt, to the soles.

6. Cold epithems are to be employed with great circumspection; and indeed externals in general are here frequently more dangerous, and require greater caution in their use, than internals. I have known repeated cold applications, in the headachs of exanthematous fevers, bring on epiphora, suffusions of the eyes, and an irremediable blindness.

7. I have frequently seen violent headachs abated by a few drops of the mineral anodyne liquor taken into the mouth upon powdered sugar. In the intermissions, the balsamum vitæ is of excellent service, for strengthening the head,
and

and preventing a return ; whether applied externally to the crown or temples, snuffed up the nose, or taken internally on sugar with some warm infusion.

Cephalæa
or
Headach.

8. In headachs from an ebullition and exagitation of the blood, abstain from purgatives and other evacuants ; and give only medicines of the refrigerating kind, as plain cold water in considerable quantities, and nitre.

9. A cephalæa is often joined to hypochondriacal melancholy, with a depravation of digestion, emaciation, fearfulness, and ill colour of the face. The principal remedies are, bleeding, warm bathing, exercise, mineral waters, medicated broths, particularly with juice of cichory, and chalybeated goats whey.

§ 4. *Histories of Cases.*

1. A young man, subject, from immoderate study, to hypochondriacal complaints, indigestion, stricture of the belly, spasms, flatulencies and headachs at times ; after drinking to ebriety of Rhenish wine strongly impregnated with fumes of sulphur, was seized with an intense continual pain, chiefly in the fore and left side of the head ; which, on any considerable change

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of weather, or application of mind, increased to such a degree, as almost entirely to destroy the strength, appetite and sleep. Repeated bleedings, laxatives, stomachics, cephalics, both internal and external, did no service. Pediluvia, frictions of the feet and head, a temperate warm regimen, a warm infusion drank in the morning in bed, a decoction used for common drink, the balsamum vitæ applied in the urgency of the pain to the nostrils, neck and temples, gave great relief.

2. A person of forty-three, of a robust constitution, accustomed from infancy to the too liberal use of wine; after hunting for some weeks in cold, wet, windy weather, was seized with a sharp, painful, burning defluxion in both eyes, and a violent obstinate headach, with a swelling of the skin. By the use of the Seltzer waters mixed with wine, our blister on the neck, and the Egra waters, with a proper regimen, the pain greatly abated. On anointing the head with the balsamum vitæ, an ichorous matter, like that of ulcers, oozed out plentifully: a skull-cap of balsamic and cephalic powders was also worn for some time; and by these means the pain was totally removed,

3. A young man, of a spongy habit and sanguine complexion, long subject to bleedings at
 the

the nose; after omitting venesection, to which he had been accustomed thrice a-year, for preventing the hæmorrhages, was seized with an intense headach, dulness of hearing, and tingling of the ears: the head was all over red and tumid. By plentiful bleeding in the foot, the pain was abated; but it did not entirely cease, till an hæmorrhage was procured from the nostrils, by thrusting up a straw. He had afterwards frequent returns, and venesection proved insufficient to prevent them: by drinking water, whey, taking nitrous powders at times, and avoiding strong exercise, he perfectly recovered.

Cephalæa
or
Headach.

4. A clergyman of fifty, of a weak stomach, subject to catarrhs, toothachs and headaches, which had been much diminished by omitting dinners; complained of obstinate pains, extending from the head to the right side of the neck and chest. Cephalic essences, cinnabarine powders, issues in the neck and right arm, venesection, penetrating oily liniments, were tried without effect. He could scarce stoop or turn his head without pain, and complained of a vast weight in the left part: the glands of the neck became tumid: the nose discharged a whitish tenacious mucus in small quantity: he had at times pains at stomach, and inflations of the hypochondres. The Caroline waters, with a proper regimen, and cupping in the neck, gave relief.

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This was not a simple headach, but rather a rheumatism of the head and adjacent parts, from a general indisposition of the juices. In such circumstances, medicines adapted to particular symptoms could not avail.

5. A lady above seventy-seven, full of blood, had laboured under a hemicephalæa from the cessation of the menses at the fiftieth year. Many remedies were employed, and venesection often repeated both in the arm and foot, without effect. At length about six ounces of blood being taken from the nostril of the affected side, by thrusting up a feather, cold water applied frequently to the part with double linen-cloths, and taken internally for three days, to the quantity of three quarts a-day, the pain abated.

6. A Jew about forty, of a tense habit, upon eating immediately after a fit of passion, was seized with a pain in the crown of the head, occupying a space no larger than an imperial, not acute and pungent, but pressive and heavy, nor continual, but returning chiefly towards the evening; yet so violent, that the sleep, appetite, and strength surprisingly failed, the pulse was irregular, sometimes quick, sometimes weak and slow, the mind dejected, and sometimes in the paroxysm disordered. We tried the more efficacious

cacious kinds of medicines for two months ; but though at times we seemed to procure some remission of the pain for a few days, it returned from the slightest causes as violent as ever. Another Physician, after purging with the Sedlitz waters, ordered a pint of cold water to be drank in bed every morning and afternoon : at first it brought on a chilness, and the symptoms seemed to increase ; but in an hour after drinking, the pulse grew large, and a plentiful sweat broke out, with an abatement of the pain : the medicine being continued for seven days, the pain totally ceased. Some weeks after, a fit of passion brought back the pain ; it yielded again to the same medicine in three days, and the patient continues perfectly well.

Cephalæa
or
Headach.

The seat of the pain seems to have been the future, where the membrane that invests the skull communicates with the integuments of the brain. The cause was probably bile exagitated by passion, and afterwards stagnating and corrupting in the duodenum. I have often observed violent cephalæas from a fit of passion just before meals ; and have cured them, after other medicines had failed, by acidulated whey taken to the quantity of a quart a-day ; which frequently occasioned six stools a-day.

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7. A man of fifty, had a quartan of nine months continuance unexpectedly suppressed by three doses of bark. In its place succeeded a violent continual cephalæa, with a tumour of the head, debility of the hands, and great weakness of the whole body: it was commonly at its height in four or five hours after meals. After numerous remedies had been used in vain, a cure was obtained from the Caroline waters, the body being previously prepared by aperient salts and the balsamic pills.

A headach is a common symptom in quartans: on the imprudent suppression of the fever, the obstructions of the small vessels increase, the pains of the head and limbs are exasperated, and œdematous tumours ensue. In such cases, mineral waters are the best remedy: where these cannot be procured, a cure may be effected by mild diaphoretics, decoctions of the woods, powders of cinnabar and volatile salt, or of medicinal regulus of antimony with salt of wormwood, the corroborating essence formerly described, with the interposition of manna and rhubarb.

8. A woman of thirty, of a tender and sanguineo-choleric constitution, sedentary life, and irregular menstruation, complained of a pungent
 tensive

tenſive heavy pain, at firſt affecting the whole head, afterwards declining to the left ſide, and thence extending ſometimes to the arm, with ſhiverings at times, and a quick, hard, unequal pulſe. A complete cure was obtained, by pediluvia every day for ſome time; venefection in the foot after the ſparing uterine evacuation; an infuſion of vervain, balm, milfoil-tops, fennelſeeds, cubebs, and chamomile-flowers, drank in the morning for tea; balſamic pills, with extract of ſaffron and a little mercurius dulcis, taken every other night at bed-time; a mixture of equal parts of camphorated ſpirit of wine and baſamum vitæ, without ambergris, applied to the affected parts; the ſtomachic elixir taken at meals; and a ſtrict regimen, with exerciſe, and abſtinence from ſubſtances of the cold and acid kind.

Cephalæa
or
Headach.

9. The ſon of a nobleman, ſcarce ten years of age, after the ceſſation of a bleeding at the noſe, to which he had been frequently ſubjected, complained for ſome months of a numbneſs and obtuſe heavy pain of the head, reaching to the bottom of the eyes. His lively wit, activity of body, and ſleep, failed: the face was pale, the limbs cold and languid. Some blood was taken from the foot; and the caſe being judged ſomewhat of the hypochondriacal kind, the Seltzer waters were drank, with a proper regimen, but
without

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without giving any relief. An infusion of mild cephalic herbs being drank every morning as tea, venesection repeated, the neck three days after cupped and scarified, and an errhine powder frequently snuffed up the nose, the pain and all the symptoms abated, and the child recovered perfect health : a little blood began likewise to drop again from the nose.

10. A lad above twenty, healthful and robust, after being twice cured of virulent gonorrhœa, complained in some months of itching pustules here and there all over the body, most numerous on the right side, with a hard tumour of the right testicle, an universal languor, violent pains of the head, especially in the night, preventing sleep, and depressing the appetite and strength. Many remedies, and even a mercurial salivation, were employed without success. After the disorder had continued above half a year, and the patient been greatly emaciated, I ordered first some gentle laxatives, and afterwards a decoction of experienced virtue for purifying the blood and promoting sweat : four ounces of sarsaparilla, one ounce of crude antimony, one dram of salt of tartar, and the same quantity of sal gem, were boiled in five quarts of water, in a tinned still, till near half the liquor had come over : the distilled water being mixed with the remaining decoction,

decoction, and passed through a filter, one half of the filtered liquor was mixed with an equal quantity of a decoction of scorzonera and raisins for common drink; and the other half divided into two parts, to be taken warm in bed, one in the morning, and the other at five in the afternoon, with a proper regimen for promoting a sweat: the tinctura antimonii acris, with one-third its quantity of spirit of tartar and the mineral anodyne liquor, was at times interposed, and this course continued for six weeks. The tumefied testicle was treated with resolvents and discutients; among which, a mercurial plaster with flowers of sulphur and a considerable proportion of antimoniated balsam of sulphur, covered with a cataplasm of elecampane, marsh-mallow, and flower-de-luce roots, wild cucumbers, elder-flowers, cummin-seed and caraway-seed, boiled in elder-flower water and wine, answered extremely well, reducing the tumour above one half. By these remedies, the disorder was totally removed, and the patient restored to perfect health.

Cephalæa
or
Headach.

CHAPTER II.

Of SPASMODIC FLATULENT CARDIALGIA.§ 1. *General History.*

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THE spasmodic cardialgia consists in an acute pain about the pit of the stomach, generally preceded by a shivering and chillness of the back, or a yawning and stretching, accompanied with great anxiety, difficulty of breathing, prostration of the strength, restlessness, retching, trembling and coldness of the extremities, particularly the lower ones, and slight faintings, going off in a sweat.

The seat of this disorder is generally supposed to be the upper orifice of the stomach, called *cardia*. But it appears to be rather the lower orifice or pylorus; for the pain begins, and is all along chiefly complained of, at the right side of the scrobiculus cordis, under the cartilago mucronata, where the pylorus is always situated; and thence extends to the cardia, which is in the left side, at the back, near the spinal marrow.

row. On dissection, the pylorus is found principally affected: there are sometimes abscesses, tumours, and mortifications, of which the bottom of the stomach and the duodenum likewise participate.

Spasmod.
flatulent
Cardialg.

The cardialgia arises from the stomach being either distended by flatulencies, or constricted by spasms. In the flatulent kind, there is a great difficulty of breathing, and often an external tumour, as large as an egg, at the pit of the stomach, towards the right side: the pain is relieved by eructations, and comes on chiefly after meals. This disorder is common to hypochondriacal persons, and children, where bilious or acid humours abound in the first passages: it has been sometimes mistaken for the colic, from which it differs in the seat of the pain.

The spasmodic cardialgia is distinguished by a greater anxiety of the præcordia, a greater depression of strength, restlessness, and coldness of the extremities, and the absence of flatulencies. This happens chiefly from violent fits of passion, or as a symptom in other diseases.

Simple cardialgia is not dangerous, unless an inflammation comes on: the symptomatic, in acute fevers, malignant dysenteries, &c. and those

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those from worms or drastic medicines, are extremely so. Sometimes the pain continues for several months without intermission; a mark that the solid parts are affected.

§ 2. *Method of Cure.*

The general indications of cure are, to correct, obtund, and evacuate the acrid matter; to abate the pain, and guard against an inflammation: if the complaint be symptomatic, to remove the primary disease; and lastly, to strengthen the tone of the stomach and intestines.

Cardialgia from acid humours in the first passages, as those which follow the free use of acid wines or fermentable fruits, readily yield to absorbents, especially if given in some carminative lightly spiritous water. To these may be joined obtunders of acrimony, as strong decoctions of hartshorn-shavings, water-gruel, with sweet almonds and syrup of white poppies.

In cardialgia from passion, add to every dose of the powders a few grains of nitre, and interpose a gentle laxative. In such cases, the drinking of cold water is eminently serviceable: from a pint or more taken by little and little, with a warm fomentation on the stomach, I have
seen

seen an universal sweat break out, by which the pain was carried off: the cardialgia, joined with the cholera morbus, has also yielded to this simple remedy. Whey and emulsions are likewise proper.

Spasmod.
flatulent
Cardialg.

Tertians are not unfrequently succeeded by an anxious pain about the præcordia, with a languor, loathing of food, slight faintings, dryness of the mouth, and slow heat. I have found all these symptoms yield at once to a single emetic, as a grain or two of emetic tartar, which procured a copious evacuation.

In cardialgia accompanied with vomitings, as the bilious ones frequently are, the mineral anodyne liquor, with cold spring-water, or some simple distilled waters, gives present relief. Warm stomachic or carminative tinctures, and warm infusions, rather aggravate than abate the pain.

Oppressive pains, with a sense of weight at the stomach, continuing for some time, in those who are recovering from diseases, or who from other causes have the stomach weak, arise chiefly from acido-viscid crudities, and require aperients and corroborants; as, a powder composed of arum, pimpinella, ginger, galangal, orange-peel, cum-

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min-feed, mace, each equal parts, with an equal quantity of sugar; of which a proper dose may be gently boiled in strong wine: or a mixture of essence of zedoary, the carminative essence of Wedelius, spiritus de tribus, each two drams, balsamum vitæ, fifteen drops. Previous to these medicines, a redundancy of humours is to be lessened by an emetic of ipecacuanha.

In cardialgia from poisons or drastic medicines, the greatest benefit is to be expected from the plentiful use of new milk or oily substances, with a dose of theriaca. This last should not be given too early, lest it stop the vomiting, by which the virulent matter is often evacuated.

In the symptomatic cardialgia of exanthematous or other acute fevers, which generally threaten a mortal inflammation, give emulsions with diaphoretic powders, a few grains of nitre, and one-fourth or one-half a grain of camphor. Where exanthematous matter has been repelled into the habit, its propulsion again to the skin is to be attempted by the mineral anodyne liquor, with one-fourth of Buffius's spirit, or spirit of tartar, and a mild diaphoretic regimen.

In menstrual suppressions, and in the first months of pregnancy, cardialgic complaints frequently

quently return at the monthly periods. The cure is effected by bleeding in the intermissions, anodynes, and external discutients. Spasmod.
flatulent
Cardialg.

Hypochondriacal persons are often afflicted for a length of time with frequent returns of these anxious pains. In such cases, after all other medicines had proved ineffectual, I have known the hot mineral waters, particularly those of Carlsbade, used with advantage: they have oftener than once promoted an hæmorrhoidal flux, to the great relief of the patient. The visceral elixir, with tincture of castor, nitrous antispasmodic powders, and bleeding about the equinoxes, are likewise of good service.

In cardialgia from worms lodged in the stomach, the stronger anthelmintics, mercurials, martial or venereal vitriol, aloetic purgatives, often exasperate the complaints. Warm milk, with oil of sweet almonds, may be drank plentifully, not only for obtunding acrimony, and affording food to the insects, but likewise for evacuating them by vomiting.

In all cardialgic pains, chamomile and its preparations, and emollient glysters, are of great service: saline medicines, and the purging waters, both in the paroxysms and intermissions,

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do harm. Great relief is often obtained from external applications to the part affected; as, a liniment of theriaca, expressed oil of nutmegs, each one ounce, castor, saffron, balsam of Peru, each one dram, oils of citron-peel and cloves, each twenty drops, camphor half a dram; or, a bag filled with chamomile-flowers, common and Roman, elder-flowers, mint, each one handful, bay-berries, juniper-berries, each half an ounce, cummin-feed, caraway-feed, cloves, nutmegs, each two drams.

For the prevention of these disorders, the belly should be kept open; but purgatives are improper, as they tend to weaken the stomach, and promote an afflux of humours. The præcordia and back should be carefully defended from cold, and all strong foods and intemperance avoided.

§ 4. *Histories of Cases.*

1. A short, corpulent, plethoric woman, above forty, after eating plentifully of fat roast mutton, drinking wheat-ale, to which she had not been used, and returning home in a very cold evening, complained of a violent pain about the præcordia, with anxieties, coldness of the face and extremities, and a restless night. Many domestic

domestic remedies were used, warm cloths and hot brick applied, without relief. Next day, I found her labouring under an oppression at the breast, threatening a suffocatory catarrh, with the belly surprisngly turgid and bound, and slight faintings at times. Two cups of weak chicken-broth, with a spoonful of oil of almonds, ten drops of the mineral anodyne liquor, and five drops of the balsamum vitæ, being given every hour, and an emollient and carminative glyster injected, flatulencies were discharged upwards and downwards, not without benefit. A liniment of axungia, oil of caraways, and some grains of camphor, was applied to the affected parts: an herb-tea drank for abating thirst: and a glass of wine impregnated with worm-wood, orange-peel, and mace, given at times. The day following, the belly was loosened by a potion of manna two ounces, cream of tartar one dram, essence of orange-peel twenty drops, with some spoonfuls of oil of almonds; the operation of which was promoted by a glyster. A large quantity of vitious humours was evacuated; at length a sweat broke out all over the body, and the symptoms by degrees disappeared. Relapses were prevented by balsamic pills and a carminative elixir.

Spasmod.
flatulent
Cardialg.

2. A nobleman about fifty, of a sanguine temperament, after laborious journeys and fa-

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tigue of mind, had a continual bilious fever, which was cured, returned, and cured again. After a fresh journey, and a too plentiful supper, he was seized in the night with anxieties about the præcordia, a difficulty of breathing, restlessness, profuse cold sweats, and constant retchings to vomit. On drinking some hot tea, he brought up large quantities of undigested food; the anxieties nevertheless continuing almost intolerable, the belly obstinately bound, with a constant stimulus to urine, but no discharge: the extremities were cold, the pulse hard and contracted. A hundred and twenty-five drops of the mineral anodyne liquor, with fifty drops of the balsamum vitæ, being given in cold water mixed with one half of wine, and a bag of toasted oats applied to the epigastric region, flatulencies were discharged upwards and downwards, to his great relief. After drinking some tea, the extremities grew warm, the anxiety went off, a sweat broke out, and a calm sleep coming on, he got free from all his complaints. A carminative glyster brought away a large quantity of feces. Next day he had some icterical symptoms: these also went off, on continuing the anodyne liquor in smaller doses, with nitrous powders, and a few drops of oil of chamomile.

3. His serene highness —, about forty, full of blood, had an hæmorrhoidal flux for some

some years. On exposure to cold at the approach of the period, he complained of restlessness, languor, heat, cardialgic anxieties, slight faintings, unquenchable thirst, gripes, and hardness of the belly. On attempting to inject a glyster, it was thrown back ineffectual by flatulencies. Gentle diaphoretics, with nitre, a little castor, and cinnabar, did no service. Five ounces of blood being taken from the foot, the symptoms seemed rather to increase: on taking away near a pound more, the anxiety, burning heat and pain about the præcordia immediately abated; after which, analeptics, diaphoretics, an emollient glyster, and a gentle laxative, completed the cure.

Spasmod.
flatulent
Cardialg.

4. His serene highness —, aged twenty-six, fleshy and full of blood, for preventing a return of hereditary hypochondriacal complaints, of which he had been just cured, went to the Caroline waters, in sultry hot weather. The night after the journey, he had no rest: in the morning, he was seized with great anxiety about the præcordia, retchings to vomit, coldness of the extremities, internal heat, and uneasy tossing of the body. A vein was opened; but the orifice being small, scarce an ounce ran out, and the symptoms increased. Next morning, five ounces were taken away, without much relief: in-

H h 4

ternally

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ternally was given the mineral anodyne liquor, with nitrous powders. At length being prevailed on to another repetition of bleeding, eight ounces were drawn, on which he was soon freed from all his complaints.

5. A nobleman was subject for some years to a violent oppressive pain and spasm about the præcordia; supposed owing to cold in immoderate huntings, and strong liquors. It began with a coldness, extending from the left hypochondre to the pit of the stomach, the sternum, breast, back and arms; with a difficulty of breathing, restlessness, prostration of the strength, and anxiety. Warm fomentations, glysters, and diaphoretics, removed the paroxysm: but any commotion of mind, cold, improper food or liquors brought it on again. Bleeding two or three times a-year was of no service. A cure was obtained by the Caroline waters: along with which were used the visceral elixir, mixed with the mineral anodyne liquor, balsamic pills, and a nitrous powder sprinkled with some drops of oil of mace or chamomile.

6. A gentleman of thirty, of a robust constitution, accustomed to intemperance, and to go very lightly covered; complained of frequent intense pains, distensions, and anxieties about the
region

region of the stomach, with loss of appetite, and vomiting. After sundry medicines, both internal and external, had been used without effect, he was cured by the Caroline and Toeplitz waters. In a short time, after frequent huntings and wading in water to the thighs, an over plentiful meal of various foods and wine was followed by a very severe paroxysm: a cold sweat broke out on the extremities, he could scarcely breathe, often fainted, and seemed ready to expire. Warm fomentations and internal medicines gave no relief. By a warm bath of water and milk (in which he staid an hour or more) and afterwards taking, in bed, the mineral anodyne liquor with Bussius's spirit in some chamomile-water, the extremities grew warm, a sweat appeared, the belly, which had been bound for some days, became loose, and the pains abated.

Spasmod.
flatulent
Cardialg.

7. A man in the prime of age, of a robust constitution, was seized, after violent passion, with a coldness and shivering of the extremities, followed by an anxious pain and burning heat at the pit of the stomach, nausea, retchings and restlessness. Three grains of emetic tartar brought up a little greenish mucous matter, with great straining and anxiety. A repetition of the dose aggravated the complaints, without procuring

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procuring any evacuation, excepting continual convulsive eructations. The mineral anodyne liquor gave relief; but on taking afterwards an ounce of Epsom salt, the symptoms returned with greater violence, and carried him off on the third day from the first emetic.

CHAP.

CHAPTER III.

*Of PAINS and SPASMS of the PRÆCORDIA,
from BILIARY CALCULI.*§ 1. *General History.*

SPASMS and pains of the præcordia, often arise from calculi in the biliary vessels.

Pains
from bil.
Calculi.

The calculus felleus is much more frequent than is generally imagined; and gives rise to very obstinate complaints, whose cause is often first discovered on dissection. These stones are met with of all varieties of figures and colours; oval, round, cubical, triangular, hexangular, octoedral, pyramidal, &c. whitish, greyish, leaden-coloured, most commonly yellowish, or yellowish-red, blackish-brown, black, greenish, spotted and variegated with different colours; sometimes composed of a reddish brown nucleus, incrusted with a chalky or gypseous matter. They differ also much in degree of consistency; some being soft and friable, and such are generally white, grey, or yellowish, and very light; others more

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more compact and solid, and these are for the most part of a darker colour, and often of a smooth glossy surface. Some swim in water, and others sink: some, which swim at first, on being kept for some time in the liquor, fall to the bottom; and some which swim when entire, sink when broken in pieces. Sometimes the whole gall-bladder has been found filled and distended with one large calculus, weighing some ounces; sometimes with thirty, fifty, eighty, or even three hundred small ones of different sizes. They are frequently met with in oxen in the hepatic ducts; but in human subjects they are rarely found there.

The darker coloured compact gall-stones take fire from a candle, and burn almost entirely away with a bright flame like resin, leaving only a small portion of a blackish, ashy, almost insipid matter: the whitish, ash-coloured, gypseous, and cretaceous, either do not burn at all, or but weakly, and melt on a red-hot iron like wax. Some of the solid and dark-coloured did not dissolve by gentle coction, either in rectified spirit of wine or in water: of others, of a softer kind and large size, filling nearly the whole cavity of the gall-bladder, above one half was dissolved by warm water. The deep yellow friable gall-stones found in an ox, very difficultly take flame,
and

and change into a black coal, emitting a smoke which smells like that of burning hair: spirit of wine readily extracts from them a yellow tincture and bitter taste: water dissolves also a little, but gains only a pale yellow colour, and bitterish taste.

Pains
from bil.
Calculi.

Fresh oxes gall is intensely bitter, a single drop communicating a sensible bitterness to an ounce of water. An ounce left on evaporation about a dram of a resin-like extract, which burnt with a bright flame, leaving about half its weight of ashes; dissolved difficultly in rectified spirit, readily in water and in phlegmatic spirits; the colour yellow, the taste very bitter. If a fine argillaceous and gypseous matter be intimately mixed with the soft inspissated gall, the compound dries into a pretty hard mass, which burns in the same manner as the cystic stones. It may be presumed, therefore, that these stones are a concretion of the grosser parts of the bile, with a fine glutinous or tephaceous substance.

The most common symptoms from gall-stones are, a continual fixed pain in the right hypochondre, about the region of the liver, heavy, oppressive, and sometimes acute, extending sometimes to the pit of the stomach, with an ill colour of the face, increasing at certain intervals
to

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to a great degree, with gripes all over the belly, loss of appetite, nausea, retchings, anxiety about the præcordia, cardialgic pains, faintings, costiveness; to which at length accedes an obstinate jaundice. Some are teased with continual gripes for many years: most die hydropic. Sometimes the pain is obtuse, with a sense of weight in the part; particularly where the cyst is distended by small soft stones. A very acute pain, affecting by consent the remoter parts, the arms, &c. with spasmodic strictures and convulsions, accompanied with febrile symptoms, may be judged to proceed from a large rough stone lodged in the cystic ducts. But the most certain mark of these stones is the voiding of them by stool. Sometimes numerous calculi are found in the gall-bladder on dissection, without having been productive of any complaint.

§ 2. *General Method of Cure, with Practical Cautions.*

The primary indication during the paroxysms, is, to alleviate the pains and spasmodic strictures, by emollients, as oil of almonds, spermaceti, milk, sweet whey, emulsions, infusions or decoctions of marshmallow-roots, pellitory-leaves, mallow-flowers, elder-flowers, and red poppies; anodynes, as dulcified spirit of nitre duly prepared,

pared, the mineral anodyne liquor, extract of saffron, and of wild poppies; antispasmodics, as powders composed of crabs-eyes, cinnabar, nitre, peony, misletoe, with a little extract of saffron; gentle laxatives, of manna, rhubarb, cream of tartar; mild glysters; emollient and carminative epithems, and bladders full of warm liquor applied to the part.

Pains
from bil.
Calculi.

In the intervals, we must endeavour to open the obstructed ducts, and propel the calculi; by infusions or decoctions, in water, or wine and water, of aperient and resolvent vegetables, as the roots of madder, grass, asparagus, parsley, pimpinella alba, birthwort, turmeric, cichory, liquorice; with the addition of rhubarb, soluble tartar, sal diureticus or sal polychrest, and syrup of marshmallows; which taken in proper doses, and duly continued, are found remarkably serviceable in the cure of these disorders.

SYLVIVS, and from him LANCISI and BIANCHI, recommend a decoction of grass-roots, and the juice of grass, as possessed of a specific power of dissolving biliary calculi; chiefly from this observation, that sheep and oxen are freed by feeding on grass in May from the stony concretions which form in their gall-bladders in the winter. A decoction of pareira brava, a root lately

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lately introduced from Brazil, proves also a very salutary drink both in these disorders and in humid asthmas: two drams of the root are to be slightly boiled in a pint of water, and one-third of the liquor, sweetened with a little sugar, taken warm every three hours: an instance is given in the French Memoirs 1710, of a jaundice with gripes and intense pain, being cured by this method in twenty-four hours. Some recommend powdered millepedes, with neutral salts, as the sal diureticus, sal polychrest, vitriolated and soluble tartar, in all obstructions of the hepatic ducts. If all these medicines, long continued, prove ineffectual; mineral waters, both purgative and chalybeate, are the last resource; the body being previously prepared, a plethora diminished, or cacochymic indisposition corrected.

§ 3. *Histories of Cases.*

1. A gentleman of sixty-six, full of blood and juices, who had never been blooded, accustomed to high living and the free use of wine, subject for ten years, sometimes to calculous and sometimes to gouty pains, complained for some years of a violent pain in the region of the bladder, with a great weight in the part, which was increased by motion; a titillation was perceived
about

about the pubes and perineum; the urine came away in drops, and could not be retained, looked white, turbid, and deposited a mucous sediment: in the mean time the gouty and nephritic pains ceased. Being at length greatly reduced and emaciated by the violence of the pain, he expired. On dissection, a stone was found in the urinary bladder weighing eight ounces in the pelvis of the left kidney, a stone of the consistence of marble, weighing two drams: in the gall-bladder, upwards of seventy stones of different sizes, some so smooth, glossy, and beautifully variegated, as to be worn in rings.

Pains.
from bil.
Calculi.

2. A gentleman of sixty-five laboured under a jaundice and hydropic swelling; for which several kinds of medicines were given in vain. At length he took an infusion in wine of the middle bark of the elder-tree, in a considerable dose: it vomited and purged strongly: by the vomitings were thrown up twenty stones of different sizes, weighing a dram, or a dram and a half. The jaundice disappeared; but the dropsy continued, and increasing carried him off.

3. A sword-maker complained for two years before his death of intolerable gnawings, pains and burnings in the præcordia about the right hypochondre, as if he had burning coals in his

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body; with an ill colour of the face, and faintings at times. On dissection, the gall-bladder was found full of calculi: the adjacent parts, particularly the colon, part of the duodenum, the pylorus, and bottom of the stomach, stained yellow, and their exterior coat corroded.

4. A nobleman of fifty, of a tender constitution and melancholic temperament, had an obstinate jaundice, with a fixed pain in the region of the liver: every thing taken into the stomach was vomited up again, with great anxiety of the præcordia: the whole body was tinged yellow: the feces grey. Medicines were given both for abating the pain and spasm, and strengthening the stomach, but to no purpose: small doses of arcanum duplicatum and the mineral anodyne liquor were the only ones he could bear. Externally, an epithem of wormwood, chamomile-flowers, and elder-flowers, boiled in red wine, was applied frequently to the part affected. By degrees, the pain and other symptoms abated, the urine became red like thick beer, the belly loose, the stools white, tephaceous and calcareous: these continued for near a week, and were promoted by gentle laxatives of manna, rhubarb, and cream of tartar. By subjoining mild balsamics, a complete cure was obtained in a month.

5. The

5. The wife of a Jew, aged fifty-five, thin and weak, who had long indulged grief, and been subject to colic and cardialgic pains; was seized on a sudden, after taking a purgative, with an acute and almost intolerable pain in the region of the liver, and gripes of the intestines, with costiveness, which at intervals remitted. On the seventh day, a jaundice acceded. The symptoms having continued for near a month, and reduced her to the lowest extremity, notwithstanding the use of medicines of the most efficacious kind; I ordered a strong decoction of turmeric with salt of tartar, to be mixed with beer for common drink; a potion of manna two ounces, cream of tartar a dram and a half, nitre twelve grains, oil of almonds an ounce and a half, to be taken in the morning at intervals, which procured eight large viscid bilious stools; and a bladder full of warm oil to be applied to the affected part. In some days the pain and other symptoms abated, and the patient recovered. But a like paroxysm, only less violent, returned several times for a year, and was always relieved by the same medicines. Both in the paroxysms and intermissions, hard globules, like peas, were often voided by stool. The woman is still valetudinary.

Pains
from bil.
Calculi.

CHAPTER IV.

Of VOLVULUS, or ILIAC PASSION.§ 1. *General History.*

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ILIAC passion, the chordapson of the Greeks, or volvulus of the Romans, is characterized by an acute pain of the small intestines, with vomiting, and an obstinate constipation of the belly.

This disorder is usually of short duration; proving mortal, if no relief is obtained, in a few days: on dissection, the ileum is found convoluted, in some part inflamed and sphacelated, and the part above the inflammation remarkably distended with flatulencies. A fever, hard and quick pulse, unquenchable thirst, tossing of the body, great depression of strength, coldness of the extremities, suppression of urine, and very intense pains, are marks that an inflammation has come on; in which case, there are little hopes of cure. A sudden cessation of the pain, with extreme weakness, faintings, and fetid breath, denote the part to be sphacelated. So long as
there

there is no inflammation, if glysters are admitted, if the pain and vomiting are not continual, but come on at intervals, and if the disorder has arisen, not from an inguinal hernia, or an intussusception of the intestine, which sometimes happens, but from the intestine being obstructed by its contents, we are not to despair. If medicines given internally begin to procure stools, the hopes are still greater.

Volvulus,
or
Il. passion.

§ 2. *Method of Cure.*

HIPPOCRATES directs the cure to be attempted, not irrationally, by suppositories of considerable length tipped with ox's gall, and by glysters; if these fail, by forcing in air with a large bellows, then injecting a glyster, and setting the patient in warm water, the anus being stopped by a sponge. He orders the stomach to be immediately emptied, and blood to be taken from the head and arms.

If the disorder proceed from an incarcerated hernia, as it very frequently does, the principal care must be to soften and reduce the intestine. In all cases, we must endeavour to abate vehement pains: pain has very powerful effects on the animal machine: it is on this that the vomiting, singultus, anxieties, watchfulness, fever, delirium,

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lirium, prostration of strength, stricture of the whole intestinal canal, and trembling of the extremities, depend; all these symptoms abating with the pains. For this purpose, I generally give, with great success, a spoonful of weak spiritous mint-water every hour, with ten or fifteen drops of the mineral anodyne liquor, and a little opiate tincture; and apply externally to the epigastric region a plaster of equal parts of old theriaca and expressed oil of nutmegs, with some essential oil of mint, and camphor. The vomiting or singultus being restrained, gentle laxatives of manna, cream of tartar, and oil of almonds, have a greater chance of taking place.

The iliac passion, from whatever cause, seldom proves mortal, unless from an inflammation and consequent mortification of the part. Bleeding is necessary for preventing inflammation, especially if the patient be plethoric; and, for resolving it when already formed, nitre in doses of six or eight grains, with one-fourth of a grain of camphor.

If all these remedies fail, the last resource is crude quicksilver, which has procured a passage in desperate cases, and may be taken with safety to the quantity of a pound.

Volvulus,
or
Il. passion.

§ 3. *Practical Cautions and Observations.*

1. The stronger purgatives are never to be given, as they increase the pains and spasms. Glysters of very warm substances, and carminative stomachic essences, though serviceable in flatulent colics, arising from what the ancients called a cold cause, are in the iliac passion very improper.

2. Where the strength begins to fail, and faintings to come on, mild analeptics may be given; as black cherry, balm, mint, or simple cinnamon water, or generous wine, by a spoonful at a time.

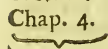
3. Glysters of warm water with syrup of marshmallows, are of great service for dissolving the excrement, and relaxing the rigid intestines: they may be repeated, if the strength will permit, every two hours.

4. When the anus is so much constricted as not to admit the pipe of a glyster or bellows, we must endeavour to procure a relaxation by warm fomentations, and to inject warm oil by a slender pipe.

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5. The warm bath is proper in the decline; and, in many cases, may be employed also with advantage at the beginning.

6. For abating violent pains, opiates may be used with safety, provided the strength continues, a plethora has been diminished, and there are no symptoms of mortification.

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CHAPTER V.

*Of PAINS of the INTESTINES, particularly
FLATULENT and SPASMODIC COLICS.*§ 1. *General History.*

THE whole intestinal canal is subject to pains and spasms, from flatulencies or irritating matters. In flatulent pains, the abdomen is distended, sometimes so much that the pain is increased from the touch: there are instances even of an umbilical hernia from the great distension: the pain is acute, the belly bound; if the stomach also be inflated, the breathing becomes difficult, and eructations happen at times, with some little relief: cardialgic passions and fruitless retchings accede. In spasmodic or convulsive colics, the belly is compressed, the navel drawn inwards, the anus constricted so as scarce to admit a glyster-pipe: there is also an intense pain in the loins, a strong contraction of the peritoneum and abdominal muscles, coldness of the extremities, tremor, shivering, hard contracted pulse, extreme anxiety, and at times faintings supervene.

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& spasmo-
dic Colics.

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Flatulent pains are to be distinguished from flatulencies of the intestines: the former happen from a simple relaxation of the parts, chiefly in the aged and weak, and those who use too freely cold inflating foods; and are readily carried off by eructations, or a solution of the belly: the latter are always accompanied with some considerable injury of the intestines, productive of more troublesome symptoms, and more difficultly removed.

Spasmodic colics agree in many symptoms with nephritic pains. They differ, in the pain not being so acute, or fixed in the loins, or extending along the tract of the ureters; in being accompanied with no remarkable stimulus to urine, nor the urine being thin and watery, or depositing any sandy matter; in the belly being more obstinately bound, and the pain abating when stools are procured by a glyster.

The cause of intestinal pains does not lie in the very part where the pain is perceived, for an intestine cannot be inflated without an obstruction in some other part: flatulencies are often generated without obstructions, but they create no pain so long as they find an exit. In spasms or obstructions of any part of the small intestines, from scrotal herniæ, worms, indurated feces,

feces, or other causes, or where the excrements stagnate in the origin of the colon, the pain and distension are about the navel. Where the rectum or lower part of the colon is affected, the inflation is all along the large flexure of the colon in the left hypochondre towards the spleen, and likewise that which reaches under the stomach towards the liver. In hypochondriacal and hysterical persons, spasmodic strictures are most frequent in the origin of the jejunum, or extremity of the duodenum, from the vicinity of the upper mesenteric and intercostal branch: in this case, a pain is felt in the loins, the duodenum and stomach are inflated, and the free motion of the diaphragm is impeded; whence an anxiety of the præcordia, straitness in breathing, impetuous and often almost endless eructations. On dissecting those who had died of spasmodic colics, I have several times observed the lower portion of the colon coiled and twisted like a rope, and the small intestines distended to the thickness of the arm.

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& spasmo-
dic Colics.

Intestinal pains are common to persons of all ages and constitutions; most so to children, women, the aged and weak. They differ in their cause, appearances, degree of violence and of danger. The common flatulent colic arises chiefly from a retention of indurated feces, where

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where the intestines are lax or weak, the feet or belly exposed to cold, or where sweet, fermentable, flatulent, astringent foods have been taken whilst the belly was costive. Another kind of colic, called *bilious*, proceeds from acrid, corrupted, bilious humours, accumulated in the small intestines, particularly the duodenum, from violent passion, immoderate external heat, or spiritous liquors: this is accompanied with hoarseness of the voice, cardialgia, loathing of food, bilious vomitings, singultus, febrile heat, restlessness, great thirst, bitterish taste in the mouth, high-coloured urine in small quantity, and sometimes frequent bilious stools. Scorbutic and gouty persons are subject to a violent colic from a retention or translation of the noxious humour: this is of the spasmodico-convulsive kind, threatens inflammation, and rarely ceases till the matter is propelled to the external parts. A spasmodico-convulsive colic is sometimes also occasioned by an accumulation of blood in the coats of the intestines, from menstrual or hæmorrhoidal obstructions; and is denominated, according to the preceding cause, *sanguine*, *hysteric*, or *hæmorrhoidal*. Saturnine fumes bring on most exquisite colic pains, and constipations of the belly, which scarcely yield either to laxatives or glysters, with a retraction of the navel, extreme restlessness, constant retchings, and spasms of the limbs:

limbs: this disorder is often of long continuance, and apt to terminate in a paresis, a true palsy, or spasmodic asthma. The same effects have been observed from the internal use of the saturnine tinctures, and from wines sophisticated with litharge. There are also chronical colics, continuing for many weeks, and sometimes for a whole year, but with remissions and exacerbations at intervals: dissection shews the cause to be a coarctation or constriction of some of the intestines, from a scirrhus or callosity of the part.

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§ 2. *Method of Cure.*

1. Colics from menstrual or hæmorrhoidal obstructions, with great heat and a quick pulse, especially in plethoric persons, are to be treated with venesection in the foot, emollient glysters, antispasmodic nitrous powders, with a little cinabar and castor, the mineral anodyne liquor with tincture of castor and dulcified spirit of sal ammoniac, and pediluvia. In the intermissions, we must endeavour to bring back the hæmorrhage, by mineral waters, pediluvia, exercise, balsamic pills, infusions of carminative and uterine herbs, with a proper regimen.

2. Bilious colics are to be treated nearly in the same manner. One of the best medicines
is

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is a nitrous powder, with a drop or two of oil of milfoil, and a little syrup of white poppies and dulcified spirit of nitre, given in chamomile-water, which is one of the best vehicles in all abdominal pains. In this kind of colic, medicines should be taken rather cool than warm; and hot infusions, a sudorific regimen, and warm baths, abstained from: the drinking of plain cold water has sometimes removed the disorder. This caution is to be particularly attended to where the disease has arisen from passion.

3. Fixed tensive pains in either hypochondre, or under the stomach, proceed from flatulencies or indurated excrements in the colon. The medicines are, emollient, discutient, corroborant glysters; and emollient carminative liniments applied to the part affected. After stools have been procured, and the flatulencies expelled, give balsamic pills, with the interposition of manna, cream of tartar, or sal diureticus, and a spoonful or two of oil of almonds.

4. Where the rectum and part of the colon are strongly constricted, so as not conveniently to receive a glyster; foment the whole abdomen with warm oils, as the oils by decoction of chamomile, dill and rue, and animal fats, which are also to be injected as soon as they can be admitted.

admitted. The spasm being thus relaxed, give a decoction of manna with the salts and oil above mentioned.

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dic Colics.

5. Flatulent colics, from a laxity and debility of the intestines, and gross flatulent foods, bear the warmer carminatives, as the spiritous waters of caraway-seeds, cardamoms, orange-peel, chamomile-flowers; saturated tincture of orange-peel, with some spirit of sal ammoniac; the mineral anodyne liquor with the balsamum vitæ; wine impregnated with warm aromatics; a carminative liquor, composed of the mineral anodyne liquor, or dulcified spirit of nitre, essence of orange-peel, tincture of tartar, each three drams, spirit of sal ammoniac one dram, distilled oils of caraway-seeds, cummin-seeds, citron-peel, and chamomile-flowers, each six drops; the dose may be from thirty to fifty drops. Warm bricks are likewise applied with advantage to the belly, or warm bags of oats, common salt, caraway-seeds, millet-seeds, bay-berries and juniper-berries.

6. In colics from the repulsion of exanthematous, critical, or gouty humours, we can attempt nothing more than to promote a gentle diaphoresis, by a saturated tincture of scordium made in spirit of elder-flowers not highly rectified,

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fied, mixed with half its quantity of the mineral anodyne liquor, and given from thirty to forty drops twice a-day in some warm infusion; and bezoardic powders, with a little nitre, cinnabar, and lemon-juice, at bed-time; not omitting emollient glysters.

7. Colics from worms, in children, require bladders of warm liquor, or decoctions in milk of emollient and paregoric plants, as the flowers of elder, chamomile, melilot and mullein, fœnugreek-seeds, dill-seeds, anise-seeds, and saffron, to be applied to the belly; glysters of the same ingredients; internally, tincture of rhubarb and tanfy; which last is truly a specific anthelmintic; and water boiled with quicksilver. These medicines will sometimes bring away clusters of worms which had straitened the intestines, and abate at once the pain and other symptoms.

8. Distensions of the hæmorrhoidal vessels, commonly called *the blind piles*, produce an exquisite pain in the rectum, affecting by consent almost the whole body. In this case, a vein is to be opened, not in the foot, but in the arm. There are two external medicines which I have found remarkably serviceable: one is a liniment composed of three drams of spermaceti, one dram of oil of henbane, six grains of camphor, and

and ten grains of saffron, to be anointed warm on the swellings : the other, an epithem of sugar of lead, camphorated spirit of wine, and lime-water diluted with rose and elder-flower water, to be applied warm with linen-cloths.

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dic Colics.

9. With regard to the saturnine colics, so pernicious to those who work in metals, no better preservative has been found than fat broth taken in the mornings. The cure is to be effected by oil of almonds taken plentifully, with or without a decoction of manna ; and by oily glysters. A parestis succeeding the intestinal pains, requires warm bathing ; after which, the spine and belly are to be anointed with a liniment of axungia, expressed oil of nutmegs, oil of henbane, saffron, and oil of rosemary.

§ 3. *Practical Cautions and Observations.*

1. In spasmodic and convulsive colics, where the belly is obstinately bound, avoid all acrid purgatives, and glysters prepared from them. I have known them bring on an inflammation and death.

2. Where the belly has been long bound, and the intestines are stuffed with indurated excrements, a single glyster will not suffice : it is often necessary to inject two or three in an hour.

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3. Sometimes the rectum is so strongly plugged up with indurated feces, that the exit of flatulencies or scybala is entirely precluded. In such case, the anus is to be fomented with emollient liquids; the intestine stimulated by unctuous and saline suppositories, and the feces softened by the injection of emollient decoctions, with some ounces of oil, and a proper quantity of soap.

4. The smoke of tobacco, received through a pipe, is supposed to be superior to almost every other kind of medicine for procuring a passage. I cannot myself vouch for its happy effects in human subjects; but I know it to be of remarkable efficacy in the constipations of horses. I have known also some common people cured in an instant of violent gripes, by swallowing the smoke of tobacco.

5. In all violent intestinal pains, the warmer carminatives and sudorifics, and hot baths, before the belly has been opened, are extremely prejudicial; as they propel the acrid bilious matter into the blood; whence the anxieties are increased, and not unfrequently palsies, contractions of the limbs, hectic fevers, convulsions or epilepsies, are brought on.

6. In

6. In the aged and weak, or where a long continuance of violent pains has depressed the strength, forbear to give opiates. The same caution must be observed, where the body, from great debility, is bathed in sweat : opium in such cases has brought on palsies, both true and spurious, or internal mortifications.

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& spasmo-
dic Colics.

7. Nevertheless, in hypochondriacal and hysterical disorders, or violent coughs, accompanied with intense gripes, small doses of opiates are usefully joined to purgatives : the pains and spasms being allayed by the opium, the purgative will take place more effectually.

8. Periodic colics, which often return with the north winds of March and October, seem to arise from an accumulation of blood in the coats of the intestines ; the regurgitating blood being at those seasons accumulated also in the hæmorrhoidal vessels. The prevention is therefore to be effected by venesection ; in the foot, if the patient has been accustomed to hæmorrhoidal discharges ; if otherwise, in the arm.

9. Hypochondriacal and hæmorrhoidal persons, are almost perpetually afflicted with flatulencies and pains of the stomach and intestines. If neither domestic nor pharmaceutical remedies

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give relief, the last resource is mineral waters; whose effects must be assisted by moderate exercise and a proper diet.

10. Pains of the intestines and loins in child-bed, from an insufficiency of the lochia, are to be treated with caution; being apt to be followed by exanthematous fevers, which, if they arise to any great height, generally prove mortal. If medicines fail of procuring the necessary uterine evacuations, some blood must be taken from the foot; after which I have many times observed the lochia immediately appear, and the pain totally cease.

§ 4. *Histories of Cases.*

1. A lady, full of blood and juices, robust and healthful, about two years after the cessation of the menses, having received a fright soon after a violent fit of passion, had a restless night, and complained next day of an extreme coldness of the lumbar region, and a pain so intense that she could scarcely stand upright. In a little time, a shivering and chiliness of the external parts came on; followed by gripes in the belly, and great anxieties of the præcordia. The spine was supposed to be luxated; but attempts to reduce it exasperated the pain. On the third day,

day, after a restless night, cardialgic anxieties acceded, with an extreme difficulty of breathing, and ineffectual retchings to vomit: the pulse was quick and hard, the feet cold, the urine in small quantity, the belly bound. I ordered glysters, which did little service, and nine ounces of blood to be taken from the foot; on which the pain of the back, cardialgiæ and retchings remarkably abated; but the pungent pain about the right hypochondre, with the inflation and constipation of the belly, continued. Carminative glysters and emollient fomentations were repeated: internally were given, oil of almonds in water-gruel, in which chamomile-flowers had been boiled; antispasmodic and bezoardic powders, with nitre, cinnabar, and a drop of essential oil of chamomile; and the mineral anodyne liquor, with one-fourth of tincture of castor. Stools were obtained by the glysters, but the symptoms did not yield: the belly was alternately inflated, so as scarce to bear being touched, and constricted, with a retraction of the navel: the difficulty of urine continued; and a pain began at the first vertebra of the loins in the right side. On the seventh day, a mixture of acrid tincture of antimony, the mineral anodyne liquor, each half an ounce, spirit of tartar two drams, anodyne essence twelve drops, was given in doses of thirty drops every three hours, in

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chamomile, elder-flower and black cherry-waters. A profuse sweat broke out all over the body, which continued during the night, and gave great relief: the pulse and urine appeared natural, and appetite and sleep returned; but the pain did not as yet yield. Polychrest pills, with the interposition of digestive salts, brought away large quantities of fetid putrid feces, and the patient, by degrees, gained strength, and recovered.

2. A gentleman, of a tense habit and sedentary studious life, complained for three years of pains in the back and belly, and a failure of appetite and strength. Medicines were given for promoting an hæmorrhoidal discharge: no blood, but considerable quantities of tenacious whitish matter were voided at times. After a journey, he was seized with exquisite pungent pains in the right hypochondre under the groin, followed by a tumour of the part, which at length descended into the scrotum. By the use of certain medicines, some blood was discharged once from the anus, with relief, but the flux, after ceasing for a year, could not be brought back. The pains continued, notwithstanding venesection in the foot; and increased on rising and walking about a little, or exposure to cool air. There was an acute pain in the umbilical region, and

and an uneasy sensation, as of a large bullet in the part, so violent at times that he could scarcely stand upright: often, from the distension of the prolapsed intestines, and pains and spasms in the hypochondres, back and thighs, the body became contracted and rigid, insomuch that he could not move. The belly was obstinately bound, so as to give no exit to flatulencies, nor admit glysters. The pains began about eight in the morning, continued till noon, and went off in vomiting: they were accompanied with great languor, loss of appetite, night-sweats, anxiety of the præcordia, a dry cough, great emaciation, and a suppression of urine. I ordered an antispasmodic powder, composed of crabs-eyes, nitre, cinnabar and castor; the mineral anodyne liquor, with a small portion of Buffius's bezoardic spirit; the visceral elixir at meals; a fomentation for the anus, of common water and aqua hirudinum; the Seltzer waters with a little wine, or ptisan, for common drink; the belly to be kept open by emollient oily glysters; the Caroline waters next spring, and after these the Toeplitz baths. He recovered.

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dic Colics.

3. A gentleman of forty, choleric and prone to passion, accustomed to gross foods and spiritous liquors, on returning from a journey in very cold weather, complained of a pain of the

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loins, gripes, and a constipation of the belly, which had eluded three glysters: a preternatural heat, great thirst and watchfulness were joined. By repeated glysters, at first emollient and afterwards carminative, a decoction of manna with oil of almonds, and a mixture of mint-water, dulcified spirit of nitre, syrup of white poppies and a nitrous powder, the disorder was removed. In a fortnight or less it returned; and being then also removed, it again returned so violently as to endanger his life: the pain was intense and continual, with great heat, unquenchable thirst, faintings, and vomiting of every thing taken, except cold water impregnated with a little new hot bread: glysters procured no passage, nor did any kind of medicines give relief. As the patient had been extremely reduced by constant watchfulness for five days together, I ordered an anodyne epithem to be applied all over the head, composed of roses, elder-flowers, lavender-flowers, each three pugils, white poppy-seeds, henbane-seeds, dill-seeds, nutmegs, peach-kernels, each a dram and a half, saffron one dram, boiled in milk. He slept calmly all night, lost his pains, retchings and other complaints, and the belly now yielded to a suppository: stomachics and corroborants completed the cure. Relapses were prevented by bleeding twice or thrice a-year; abstinence from gross

gross foods and spiritous liquors; using for common drink, water impregnated with bread hot from the oven; and taking before and after meals for a twelvemonth, a stomachic mixture composed of Wedélius's carminative essence half an ounce, essence of cascarilla a dram and a half, and Sylvius's oily spirit sixty drops.

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4. In the monastery of Hammerfleb, several persons, from early attendance at divine service in very cold weather, were long afflicted with violent gripes and constipations of the belly; which in some had produced inguinal and scrotal herniæ, in others had gone off and left a numbness and palsy of the hands. They were all corpulent, of a sanguine complexion, lived high, and indulged in wine: those who lived more sparingly, escaped. I ordered bleeding; ptisan with a little wine for drink; refrigerants and mild carminatives, particularly spiritus nitri dulcis, and nitre with crabs-eyes and saffron; and in the spring, which was coming on, the Pyrmont and Egra waters: for the paralytic disorder, warm baths, and a liniment of Anhalt water, volatile spirits, expressed oil of nutmegs, camphor and castor. They recovered.

5. A widow lady, after a suppression of the menses from a fright, was seized with violent pains

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pains of the belly. Oily glysters sharpened with salts, and carminative sedative mixtures, in which the principal ingredient was spiritus nitri dulcis, had no effect. On drinking freely of cold water, the body being well covered, a profuse sweat broke out, followed by a calm sleep, and total cessation of the pain.

6. A young man, after the suppression of a virulent gonorrhœa, by saturnines and other astringents, complained of violent pains and constipation of the belly, which felt hard and tense, with loss of appetite, restlessness, tremors and spasms of the limbs. By frequent oily glysters, an infusion of manna in whey acuated with salts, fat broths, mild carminatives, and warm bathing, a cure was obtained in nine days.

7. A man about thirty, robust and corpulent, after quarrelling when in liquor, walking home in cold weather, and eating plentifully of fat pork, was seized with a looseness; which being checked by cold, violent pains of the belly, loins, and hypochondres, succeeded, with obstinate costiveness, coldness and tremor of the limbs, extreme anxiety and restlessness, internal straitness and constriction of the præcordia, and at length a pain and spasm of the knee. He was cured by water-gruel in which chamomile and elder-flowers

flowers had been boiled, with Epsom salt, nitre, and oil of almonds, taken at times; emollient oily glysters; carminatives and anodynes; and frequent warm bathing.

Flatulent
& spasmo-
dic Colics.

8. His serene highness —, in the flower of age, of a good habit and full of blood, subject in youth to hæmorrhages from the nose, laboured for near a year under violent arthritic pains and gripes of the intestines, by which he was greatly weakened and emaciated. Balsamic pills and other medicines were employed for promoting an hæmorrhoidal flux, to which there appeared some disposition, but which never duly succeeded. After a journey, an erysipelatous tumour appeared on one foot, which swelled to three times the size of the other; and next day he was seized with intolerable pains of the belly. Emollient and carminative glysters, liniments, powders of diaphoretic antimony, crabs-eyes, nitre, and salt of wormwood, venesection in the foot, did little service. On applying leeches to the anus, the pains abated, and by degrees went entirely off. He then went to the Caroline waters; and, after drinking, and bathing the affected foot, for four weeks, returned in perfect health. Next year he repeated the course of the waters, and continues free both from the gouty complaints and colic.

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9. Calculous pains, the imprudent suppression of alvine fluxes and intermittent fevers, are apt to weaken the tone of the intestines, and bring on costiveness, flatulencies, rumblings of the belly, eructations, obstinate and of long continuance. I have cured many cases of this kind by giving laxative balsamic pills twice a-week in the morning, aperient salts being premised at night; and Wedelius's carminative essence, with half its quantity of tincture of cascarilla, and one part of spiritus de tribus, in some convenient vehicle, twice a-day.

I have often observed also flatulent colic pains and costiveness, with rumblings and eructations, an oppression and weight at the præcordia, from a stricture of the sphincter ani. Strong strainings to stool are here, at best, ineffectual: they squeeze out a mucous matter like whites of eggs, sometimes occasion a falling down of the rectum, and sometimes even an inguinal hernia. Suppositories, especially those of the stimulating kind, exasperate the pain and other symptoms. The cure is to be effected by emollient glysters, absorbent nitrous powders, infusions of manna with cream of tartar, and, in plethoric habits, venesection.

10. Intestinal pains are often joined to miliary fevers, especially where improper regimen or medicines have repelled or prevented the due eruption of the noxious matter. Nor is the humour easily brought forth again. The expulsion is to be attempted by mild diaphoretic powders given in repeated doses with a little nitre and cinnabar, the mineral anodyne liquor sharpened with a few drops of Buffius's spirit, and decoctions of emollient and diapnoic plants used for drink.

Flatulent
& spasmo-
dic Colics.

In those who are subject to chronical scorbutic miliary eruptions, colic pains frequently return at intervals, without any efflorescence on the skin. For the prevention of these, I have found nothing more effectual than a course of mineral waters in the spring, with one third of milk.

Pains of the intestines in an advanced age, if considerably intense and lasting, I have generally observed to prove fatal. Aged people therefore should be cautious in regard to the non-naturals, and abstain from every thing that may give rise to these complaints.

Bilious colics, particularly those which happen from passion, and succeed tertian fevers, are likewise

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wife full of danger: if improperly treated by purgatives, emetics, sudorifics, or too great external heat, they are apt to bring on an inflammation of the small intestines, with anxieties and convulsions, which generally carry off the patient on the day of the paroxysm. The best remedies are soft diluents and gentle laxatives; whey, water-gruel, decoction of chamomile-flowers, emulsions, absorbent powders with nitre and rhubarb, and emollient glysters.

C H A P.

CHAPTER VI.

Of PAINS from CALCULUS in the KIDNEY.§ 1. *General History.*

LITHIASIS RENALIS, or the affection which arises from a calculus firmly impacted in the urinary passages leading to the bladder, is one of the most painful diseases to which mankind are subjected. On the first attack, it is often difficult to distinguish it from other pains in the region of the loins. Severe pains there frequently arise from rheumatic affections, from accidental blows, and from spasmodic affections of the intestinal canal. When the pain arises from calculus, it is chiefly distinguished by nausea and vomiting, by a discharge of sandy matter with the urine, and by titillation at the point of the penis, retraction of the testicle, and stupor of the thigh.

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in the
Kidney.

It is remarkable, that calculi even of a large size, and furnished with considerable ramifications, will sometimes remain for years in the kidney,

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ney, without being productive of any great uneasiness. But as soon as by any accident they are moved from their original position, the most distressing symptoms ensue. Besides chilness, shivering, nausea, vomiting, retention of urine, and bound belly, they frequently induce difficulty of breathing, constant restlessness, great loss of strength, syncope, convulsions, epilepsy, and even fatal ischuria. And the pain felt by the patient has the same sensation as would arise from a deep cut with a sharp knife along the course of the spine into the bladder.

Many causes have the effect of altering the position of stones formerly retained in the kidney without any inconvenience. Among these are justly enumerated, violent agitation of mind from anger; sudden motion of the body by riding, either on horseback, or in a carriage; the application of cold; particularly from the north wind, to the region of the loins, and the use of acrid diuretics. Often also very severe pains from calculi are begun by flatulent colics, and by those spasms of the intestinal canal, which are common to hypochondriac, hysteric, and hæmorrhoidal patients.

Among the causes giving a disposition to the generation of calculi in the kidney, the sanguine temperament

temperament has remarkable influence. Thus females of a lax habit, indulging in liberal diet, and employing but little exercise, are very liable to calculus after the menstrual flux leaves them. And among males, those who, in youth, have been liable to hæmorrhage from the nose, to pain of the head, and to the hæmorrhoidal flux, are most affected with calculi in advanced life, when these are removed or diminished. It must also be added, that there is perhaps hardly any affection more frequently transmitted from parents to children, than calculus. Often, likewise, arthritic and rheumatic affections terminate in nephritic complaints. In some cases they alternate with them, although it happens not unfrequently that a patient is at once distressed with both.

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Experience demonstrates, that all nephritic complaints, such as obstruction, inflammation, and ulceration, are more difficultly cured in old than in young patients. When the pain has continued violent for several days and nights without intermission; when the strength fails, and the urine is entirely obstructed, with coldness of the extremities, and subsultus tendinum, death may be considered as at hand. And the case is always unfavourable where a stone sticks long in the ureter: for the appetite for food and

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digestion are then entirely destroyed; the patient is distressed with nausea and vomiting, and at length hectic fever, accompanied with a wasting of flesh and strength, accelerates the death of the patient.

When the disease has continued for a long time, and ulceration has taken place, patients are for the most part cut off by the *tabes renalis*. But sometimes the disease proves more suddenly fatal, from inflammation of the kidney, propagated even to the intestines and stomach, and sometimes from total *ischuria*, giving rise to *hydrops pectoris*, lethargy or convulsions.

§ 2. *Method of Cure.*

The method of treatment of nephritic affections is very different during the accession, from what it is during the intervals. In the former, the great aim of the practitioner must be, to promote the expulsion of the stone without uneasiness; and, in the latter, to prevent the generation of calculous matter.

While the greatest exacerbation of symptoms continues, the first objects of attention are, to mitigate the violence of the pain, and allay the spasmodic

spasmodic affections, which not only attack the kidney and neighbouring parts, but by consent affect also the whole system. One of the useful and approved remedies for these purposes, is the mineral anodyne liquor, and when any objection occurs to it, recourse may be had to the spirit of nitre. These are most conveniently exhibited in some sedative water, as the aqua cerasorum nigrorum, papaveris Rhoeados, or primulae veris. They may also be conveniently given in a few spoonfuls of pure and recent oil of almonds. Emulsions also, of sweet almonds, prepared with the waters mentioned above, and sweetened with a sufficient quantity of the syrup of white poppies; are useful with the same intention. Where these measures fail, recourse must be had to opium properly corrected, as under the form of the liquid laudanum of Sydenham, or theriaca. Nitre also, mixed with emulsion or whey, is often of great service. But when the severity of the pains and spasms is almost intolerable, besides internal, recourse must be had also to external remedies; and, among these, surprising relief is often obtained from emollient and oily glysters. Tepid bathing, as recommended by HIPPOCRATES and the earliest medical writers, is also productive of the best effects. And it has been found by experience, that benefit has often been derived from the ex-

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ternal application of emollient liniments to the part most pained.

When, by the proper use of these remedies, a remission of the spasm and pain is obtained, the pulse becomes slower and softer, a gentle moisture is diffused over the whole body, and there is a free discharge of flatus. In this situation, the expulsion of the stone is with due caution to be attempted. This intention is often accomplished by the liberal use of an infusion of veronica, carrot-seed, or liquorice-root, especially if conjoined with gentle agitation of the body. Sometimes also, benefit is derived from mother of pearl, or burnt egg-shells, with citron-juce, given in any proper vehicle.

§ 3. *Method of Prevention.*

The prevention of this disease is often in the beginning no difficult matter; but if it be allowed to make great progress, all the remedies that can be used with that intention will be but of little avail. At the commencement, moderate blood-letting and due exercise are often of great service. But nothing is of equal efficacy with the liberal use of diluent drinks. Different mineral waters, particularly the Seltzer water, and whey copiously drunk, are often productive of
the

the best effects. When there has been a long continued and frequent regeneration of calculi, infusions of vulnerary and astringent herbs, as those of the *hedera terrestris*, *parietaria*, and juniper-berries, persisted in for a due length of time, have often been productive of a cure. The same articles may be also advantageously employed under the form of an electuary made with honey, which of itself possesses consolidating and balsamic virtues, very favourable in affections of the kidneys.

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The use of different alkalines, such as crabs-eyes, or egg-shells, either simply prepared or in a calcined state, the *oleum tartari per deliquium*, the *tinctura tartari*, and the like, are of great service in preventing the generation of calculi, and often free patients from severe returns of pain. Demulcents, abounding with oily and saccharine matters, and sometimes anodynes, are often also highly serviceable to calculous patients. But above all, in the prevention of calculus, care must be taken that the functions of the stomach, and due excretion by the belly, be regularly supported. This is chiefly to be done by the due regulation of diet, by the moderate use of food easily digested, and by copious dilution. Care, however, should be bestowed in the choice of very pure water; and,

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among all the means of prevention employed, none has been more highly extolled, than the drinking daily pure tepid water, to the extent of some pounds, before meals.

§ 4. *Practical Cautions and Observations.*

In the treatment of this affection, practitioners should pay the greatest attention to the constitution, age and temperament of the patient. Due regard must also be had to the lesion of functions, and sensibility of other parts. It is often observed, that unexpectedly, when nature is aided by no remedies, but left to herself, the discharge of a stone successfully takes place. Hence it is often proper, when many remedies have for a considerable time been employed in vain, to stop for a little, and give, as it were, a rest to nature; in which situation, she often does more of herself, than a Physician can do by forcing and stimulating medicines.

Strong and acrid diuretics, such as those prepared with turpentine, juniper, amber, or garlic, are never useful during a nephritic paroxysm, whether simple, or arising from calculus, but in general increase the affection, and exasperate the symptoms. But the prudent use of them at other times is not entirely to be forbid; and in
humid

humid and sluggish constitutions, they are sometimes serviceable, both as strengthening the tone of the renal vessels, and discharging impure serum, loaded with tartarous matter.

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Moderate and agreeable exercise often conspire very much, with the use of diluents, in promoting the expulsion of calculi. But on the other hand, agitation from riding on horseback, or in a carriage, in improper cases, is productive of the worst effects. By moving the stone from its situation, without being able to expel it, not only have the pains and spasms been increased, but even fatal ischuria sometimes induced. Blood-letting is not only useful in the prevention, but where the patient is plethoric, with a quick and hard pulse, great heat, and intense thirst, it is a useful remedy during the paroxysm, and prevents many dangerous symptoms, which would otherwise occur.

When nephritis calculosa occurs in a scorbutic habit, various and alarming symptoms often take place. Diluents and demulcents, particularly the whey of milk, either acidulated or sweet, are of the greatest service; and the patient should abstain from beer and wine of all kinds.

Warm bathing is often highly necessary, and singularly useful in affording relief to the pa-

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tient. But this practice must be totally abstained from in plethoric patients, especially where there is any difficulty of breathing; and previous to its employment, the plethora must be obviated, the belly opened, and the violence of the pains alleviated.

When the pain is of very long continuance, and attended with great prostration of strength, especially if these occur in advanced age, and with a weak state of the pulse, opiates are to be shunned, as if they were poison. In many such instances, I have seen the bad effects of them from experience. Gentle cordial waters, as those of mint, balm and cinnamon, with the addition of a few grains of amber or saffron, and the moderate use of wine, are the best means for supporting nature. It is also proper to restore the tone of the alimentary canal, by the external application of balsamic spiritous liniments.

Among the mineral waters useful in expelling calculi, none are more powerful than the Caroline. These, however, must be employed with caution, and the safest, either for prevention or cure, are the Seltzer waters. When there is a scorbutic taint in the humours, or an ulceration in the urinary organs, these waters mixed with a proportion of milk, and persisted in for a due length of time, are often very advantageous.

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§ 5. *Histories of Cases.*

1. A stout robust man, in the fiftieth year of his age, had fifteen years before contracted weakness of his stomach, with flatulence and eructation, in consequence of an intermittent fever. For ten years past, he had been at times subjected to vertigo, which always ceased upon a hæmorrhage from the nose supervening. But after he submitted to let blood, about the equinox, he remained free from this affection, unless venesection was omitted. Six years before he consulted me, he was often affected with severe pains from calculus of the kidney. In these he obtained great relief from glysters and anodyne liniments, and from the internal use of the oil of sweet almonds. When he was free from the paroxysm, his urine always contained a large proportion of sand, and he was often afflicted with flatulent colics. I advised him, for the removal of these complaints, to change his drink, and in place of strong heavy malt-liquor, to substitute what possessed a diuretic and antinephritic virtue. I advised him to drink liberally every morning an infusion of the tops of milfoil and liquorice-root, and to employ thrice in the month a dose of my balsamic pills, having taken the preceding night at bed-time, a dram

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dram of aperient salt. I directed also carminative essence, mixed with the anodyne liquor, to be taken occasionally, for the expulsion of flatus. By following this plan, he has now remained for several years free from any inconvenience from calculus; nor does he feel the same inconvenience as before from flatulence.

There can be little doubt, that both the vertigo and nephritic affection in this patient proceeded in part from the superabundance of blood and humours, and, in part, from the depraved condition of the alimentary canal; the effects of which were aggravated by a sedentary life, and the use of heavy malt-liquor. A change of drink, therefore, was of the utmost consequence; for nothing is of more service, either in the prevention or cure, than the daily use of proper drink. All those who have a disposition to calculus, either hereditary or acquired, should studiously shun inebriating and heavy liquors. The malt-liquor they employ should be light, diuretic, and such as does not generate wind. And when such cannot be had, a decoction of eryngo-root, grass, asparagus or liquorice, with the addition of a little nitre, is often employed with great advantage. Nor is every kind of wine suited to calculous cases. In the way of prevention, Moselle wine, which is quickly discharged

charged both by stool and urine, is the best. But when the disease is of long standing, strong mellow wine, or Hungarian, taken to a moderate extent, is often very useful.

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2. A man in the fiftieth year of his age, accustomed to a liberal diet and the free use of wine, full of blood and juices, but in other respects healthy, being much shaken in a carriage during a journey, was unexpectedly seized with a very violent pain in the region of the loins. Upon this, he returned home; but the pain increased, and extended itself to the umbilical region. To these were superadded violent cough and a bound belly; and his urine was discharged by drops, with great heat. Nothing, either in the way of diet or medicine, which could tend to alleviate the pain, or promote the expulsion of the calculus, was omitted; but without any immediate effect. By the advice of a friend, he took an infusion of tea with some ounces of the oil of sweet almonds. By this vomiting was excited; and, with much straining, he brought up a considerable quantity of a watery fluid. Soon after, his pains and other symptoms were allayed; and the day following, a calculus of considerable size was discharged with the urine. He consulted me about the means of preventing a return. I advised that he should let blood thrice every year,

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year, and that he should drink liberally of an infusion of veronica, milfoil, and liquorice-root. Since that time he has never had any inconvenience from calculus.

3. A man who had hardly reached his fortieth year, of a sanguine constitution, but slender make, who had formerly been liable to no disease, was suddenly affected with a very violent pain in the region of the loins, with shivering and coldness of the extremities. To these succeeded violent heat, a quick pulse, and great thirst. His belly was bound and distended with flatus. Different opinions were entertained concerning the nature of his disease; but as there were frequent efforts to vomiting, and as his urine was discharged in small quantities, with great heat, I suspected the disease to be in the urinary passages. Having premised glysters and external fomentations, I gave him the anodyne liquor and a decoction of barley formed into an emulsion with sweet almonds. To this a small quantity of nitre was added, for abating heat. But no relief was thus obtained. When however, on the fourth day, the thirst, heat, and pain were very urgent, I advised blood-letting in the foot, to counteract an inflammation of which I was afraid. Blood being let to the extent of some ounces, a very considerable remission of his symptoms

symptoms soon followed. Continuing with the medicines mentioned above, and keeping his belly open by glysters, the urine flowed freely, his pains were alleviated, a copious sweat was extended over his whole body, and, on the seventh day from the attack, some sharp shining grains of sand were discharged; but no calculus came away.

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in the
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Such cases as the present may be styled the *dolor nephriticus nothus*: antinephritic remedies alone are there employed in vain; for, till the congestion of blood in the affected part is removed by venesection, they are productive of no effect. After blood-letting, carminative glysters moving the belly often give immediate relief.

CHAP.

CHAPTER VII.

Of SPASM and PAIN of the BLADDER.§ 1. *General History.*

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THE bladder is a viscus frequently and readily subjected to spasm, by which we understand a preternatural constriction both of the body of the bladder and its sphincter, and from which many other morbid affections and symptoms afterwards arise.

That most distressing pain which is excited by calculus in the bladder, attended with a constant strangurious affection, and with a difficult and painful discharge of urine, is yet to be referred to spasm as its cause. For, on account of the spasmodic stricture, which not only affects the muscular coat of the bladder, but also its sphincter and the urethra, all the distressing symptoms in the discharge of urine are induced. While such spasmodic affections are sometimes induced by calculus, it is also certain that they may arise from obstruction and stagnation of blood

blood in the vessels of the bladder : and not unfrequently spasm, and even inflammation of the bladder, are produced from suppression of the hæmorrhoidal or menstrual flux.

Spasm
of the
Bladder.

This affection may also arise from various acrid applications to the bladder. Thus it has arisen from scorbutic or gouty humours, from purulent matter making its way from the kidneys to the bladder, and from the infection of gonorrhœa propagated upwards in such a manner as to irritate the neck of the bladder. But besides internal, spasms of the bladder may be induced also by external causes, as contusions on the pubes and perineum, irritation from a catheter, and the like.

§ 2. *Method of Cure.*

In the treatment of this disease, where the patient is of a sanguine and plethoric habit, and especially if it has arisen from obstruction of the menstrual or hæmorrhoidal flux, or the obstruction of accustomed discharges, recourse must be had to blood-letting. Where there is any scorbutic or other acrimony of the urine, care must be taken to free it from those heterogeneous impurities. With this intention, diluents in large quantities, and continued for some length of time,

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time, are often highly serviceable. Different mineral waters are also recommended: but the Spa and Seltzer waters are justly entitled to a preference over others; and they are particularly useful when taken with a mixture of ass-milk.

While the violence of the paroxysm, with excruciating pain and difficulty in the discharge of urine, continues, nothing affords greater relief, than emollient oily glysters, warm bathing, and the pediluvium. Fomentations also with emollient and anodyne herbs, as those of chamomile, mallows, and milfoil, duly applied to the part most pained, have very great influence in allaying the pains and spasms. The internal use of the mineral anodyne liquor, either alone or mixed with carminatives, and other antispasmodics, as castor and saffron, with emulsions of the four larger cold seeds, are highly serviceable. The same remedies also, although fever be present, and inflammation threatens, may be advantageously used, with the addition of nitre.

When the bladder is affected in consequence of the retrocession of a rheumatic affection, issues in the arms have often been found serviceable. Benefit has also been obtained from emollient and gently diaphoretic decoctions, as those of scorzonera, liquorice, and sarsaparilla.

Where

Where a discharge of bloody urine accompanies a spasmodic affection of the bladder, I have often directed the external application of Arquebuse water to the pubes and perineum, with advantage.

Spasm
of the
Bladder.

When inflammation of the bladder terminates in an abscess, which may be often discovered by a sense of weight in the perineum, it is necessary that it should be opened, and the pus thus discharged from the bladder. A natural discharge may be attempted to be promoted by the injection of tepid milk and of emollient decoctions; but if these fail, recourse must be had to surgical operation.

§ 3. *Practical Cautions.*

When a plethoric state requires blood-letting, it ought at first to be drawn off by the superior veins; but afterwards blood may be let with advantage from the ankles; and in females of a lax habit, cupping-glasses properly applied, either to the superior or inferior parts of the body, are often very useful. Although blood-letting be highly serviceable in this disease, both as preventing and removing inflammation; yet, when the patient is not plethoric, when suppuration has already taken place, and when the strength

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is much exhausted, every evacuation in this way is prejudicial.

In all pains and spasms of the bladder, from whatever cause they proceed, drastic purgatives are to be shunned. It is not only advantageous, however, but even necessary, to free the intestinal canal from accumulated feces. This is to be done by the more gentle purgatives, as manna, rhubarb, and syrup of roses with whey or ass-milk. This intention may also be often successfully accomplished by emollient glysters, which at the same time operate as internal fomentations, and sometimes alleviate the violence of the spasms even where external fomentations fail. But for allaying these, and mitigating the violence of the pain, it is sometimes necessary to have recourse to anodyne injections; and benefit will then also be derived from anodynes taken by the mouth. These however are to be shunned, when the prostration of strength does not proceed from the violence of the pain, but from old age, or affections of the mind, as grief.

§ 4. *Histories of Cases.*

1. A man in the fortieth year of his age, had for the space of several years been tormented with excruciating pain in the region of the pubes,

bes, attended with great difficulty in the discharge of urine, and sometimes with a total suppression of it. He was also distressed with watchfulness, loss of strength, coldness of the extremities, and tremors. The pain was not constant, but returned at times with such severity, that he often wished for an end to his life. But after continuing in this state for some weeks, he had such remissions as to be able to exercise his usual employment for a week or two. After being subjected to this disease for several years, his strength being at last worn out, he died. He had consulted many different Physicians respecting his disease, whose opinions varied, some ascribing his pain to calculus, others to an ulcer of the bladder. But examination of the body after death discovered a very different state of the parts affected. The bladder was entirely free either from ulceration or inflammation, and not the smallest particle either of sand or stone was found in it. But the membranous substance of the bladder was preternaturally thickened and dense. It was beset with numerous large and distended blood-vessels, some of them even of the size of a writing quill, and filled with thick and black blood. Here the stimulus inducing the spasms seems to have arisen from the distension of the nerves by the blood-vessels; and the remissions and exacerbations which took place

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are probably to be explained from the afflux of blood to the bladder being at times accidentally increased or diminished.

2. An officer in the army, upwards of sixty, had been long distressed with pains from the gout, and for several years had a considerable hæmorrhoidal discharge, which, however, had for a long time been entirely suppressed. In the autumn, he began to be affected with pains, and spasmodic contractions in his feet; but paying little regard to these, he undertook a long journey in cold and rainy weather. Upon this the pains left him; but there ensued a difficulty in discharging urine, attended with heat and pain about the pubes and root of the penis. He was affected also with loss of strength, frequent efforts to vomiting, boundness of the belly, coldness of the limbs, and, at times, great heat. Being consulted upon this case, I advised venesection in the foot, and internally diaphoretic powders, formed of nitre and cinnabar. I directed also the use of the mineral anodyne liquor, with the spirit of Bussius, to promote mild perspiration. And I ordered a liniment to be applied externally, to the pained part; formed of Anhalt water, camphor, saffron, and a small proportion of opium. For opening the belly, I advised emollient glysters, with a small proportion

tion of anodyne flowers. Within the space of seven days, his disease being terminated by a copious sweat, he was restored to perfect health.

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of the
Bladder.

3. An eminent divine, past the sixtieth year of his age, but of a sanguine constitution, of a sedentary and studious life, was seized with gravative pain about the region of the pubes and os sacrum. These were much aggravated when he spoke loud in preaching, and were relieved by rest and blood-letting. He had formerly been often liable to a scorbutic eruption, but by degrees he became affected with distressing dysuria, occurring at times with shivering, fever, and severe pain about the pubes. To these supervened a paralytic affection of the right hand. As long as it remained, his dysuria was alleviated: but when it disappeared, a more severe spasm and pain of the bladder, with constant inclination to discharge urine, instantly recurred. This affection lasted for several weeks. Many different remedies were ordered by different practitioners. Blood was several times let from the foot, but without any advantage; for so severe an attack of the pain in the pubes followed, that his appetite, sleep and strength entirely failed, and his urine was discharged with much greater difficulty, in very small quantity, and apparently containing a purulent matter. Al-

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though he had sometimes relief from the pains, yet they soon afterwards returned. At length, inflammation of the bladder, with acute fever supervening, his disease terminated fatally.

Upon examination of the bladder, its whole internal surface was found to be of a black sphacelated appearance, without the least particle either of stone or sand. This fatal affection of the bladder probably arose from a scorbutic humour being deposited and retained in its membranes, which had formerly appeared on the surface of the body; and this was perhaps, in part, the consequence of blood-letting, which has unquestionably a tendency to diminish the discharge of morbid humours by the surface.

CHAP.

CHAPTER VIII.

Of RHEUMATIC PAINS and SPASMS of the External Parts.§ 1. *General History.*

RHEUMATISM, for the most part, consists in an obtuse tense pain of the limbs, or muscular parts, without any apparent swelling or redness, and rather with a sense of coldness than of heat.

Rheumat.
of the ex-
ter. Parts.

Rheumatisms are usually preceded or accompanied at the beginning with more or less of fever, to which the pain accedes, commonly in one particular part. But sometimes it affects almost all the limbs at once, and often also the muscles of the neck and thorax. The pain is exasperated in the night, as in catarrhal fevers, and continues a chronical disease after the fever has gone off.

Rheumatisms happen chiefly to plethoric persons, and those of an irregular life, in spring and autumn, from exposure to cold, and obstruction

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of perspiration. Scorbutic persons are subject to rheumatic pains, from an impurity of the juices; and those who have been tainted with the venereal virus, to rheumatisms of a most severe kind.

These disorders are never dangerous, unless the offending humours are repelled, by improper management, upon the nobler parts. Their solution is commonly a spontaneous sweat, or copious discharge of urine, not unfrequently an hæmorrhage, and sometimes an eruption on the skin. Frequent rheumatisms in youth, with bleedings at the nose, are generally indications of an imbecility of constitution, and presages of analogous chronical diseases in maturer age.

§ 2. *Method of Cure.*

1. If the patient be plethoric, and the rheumatism almost universal, with a degree of fever, early bleeding is the principal remedy. After venesection, which may be boldly repeated if the symptoms are urgent, give frequent small doses of the milder diaphoretics, with nitre, for abating the heat; and whey acidulated with lemon-juice, or cream of tartar, for common drink.

2. In

2. In chronical rheumatisms, confined to a particular part, with great sense of coldness, and in serous, impure, cacochymic habits, abstain from venesection, and endeavour to promote the evacuation of the vitiated humours by the natural emunctories. Give first a gentle laxative, twice or thrice a-week; afterwards diaphoretics, as a decoction of the woods; and if the disorder be inveterate, antimonials. A mixture of tincture of antimony, tincture of tartar, the mineral anodyne liquor, and spirit of tartar, is a medicine of great utility, as a diaphoretic, diuretic, and corroborant.

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3. In scorbutic rheumatisms, one of the principal indications is to dilute and obtund. Whey with manna, or with tamarinds, or with the juices of antiscorbutic herbs, or the milder mineral waters, with milk, are to be drank liberally for a length of time.

4. Venereal rheumatisms are scarce to be subdued, but by decoctions of the woods, with mercurial and antimonial alteratives.

5. With regard to topics, they have little place in the bloody rheumatism; the best external means of relief, being here to keep the part in a moderate and equal warmth, which promotes
the

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the perspiration of the morbid fluid more effectually than any applications. If a cold, thick, sluggish humour is lodged deep, with a sense of coldness and stricture of the pores; frictions, and cupping with scarification, are of service: it is observable, that though the incisions on the affected part are made pretty deep, very little blood is discharged. One of the best applications is a liniment composed of tinctures of balsam of Peru, theriaca, saffron, castor and nutmeg, with a little camphor, which may be frequently rubbed on the pained limb. If a long continuance of the pain leaves a stiffness, immobility and numbness of the part (called *paresis*) the best remedy is a liniment of axungia two ounces, balsam of Peru and oil of cloves, each two drams. In the decline of the disease, and then only, warm bathing is of service.

§ 3. *Practical Cautions and Observations.*

1. Bleeding is an excellent remedy where the patient is plethoric, and where salutary excretions have been suppressed; but must be cautiously used, where a continuance of the pain has impaired the digestion, chylification and strength, and the body abounds rather with serum than blood. Nor is it proper in the febrile paroxysm, whilst nature is attempting to throw off the morbid

bific

ific matter on the external parts; in which case, as in the erysipelas, it would disturb or interrupt that salutary operation.

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ter. Parts.

2. For preventing rheumatic and catarrhus disorders, in persons of a tense habit, and sanguineo-melancholic or sanguineo-choleric temperament, nothing is more effectual than bleeding before the equinoxes, suitable exercise, and abstaining from spiritous liquors and high foods.

3. A milk diet is not without utility in wandering pains of the limbs, and where a subtile bilious acrimony offends. But where there is a fulness of the vessels, from stagnating or ferous blood, and the stomach and intestines are weak, it is more advisably abstained from, as it may obstruct the viscera, and lay a foundation for a cachexy.

4. If a suppression of the hæmorrhoidal flux gives rise to rheumatic pains, venesection is to be performed in the foot, and balsamic aloetic pills and nitrous powders subjoined. If these fail of bringing back the flux, and gripes and vomitings accompany the external pain, leeches are to be applied to the hæmorrhoidal veins.

5. Those

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5. Those who are subject to rheumatic disorders ought most studiously to abstain from all the more active medicines, heaters, diuretics, sudorifics, acrid purgatives, spiritous balsamics, strong liquors, from the use of which the urine becomes extremely high-coloured. The common drink should either be pure water, the weaker mineral waters, or some agreeable decoction.

6. When a violent and obstinate pain fixes in the lower parts of the body, as the ossa ischii and coccygis, and the patient is of a pretty strong constitution, medicines of the more powerful kind, as mercurius dulcis, and the medicinal regulus of antimony, are advantageously joined to the sudorific decoctions.

7. When the pains are extremely urgent, so as to impair the strength and appetite, and prevent sleep (as is usually the case in persons of great sensibility), and yield not to bleeding, or to nitrous medicines, or the mineral anodyne liquor, slight opiates may be allowed, with the addition of a little extract of saffron. In other cases, opiates must be used with great circumspection, as they have been frequently observed to render the disease so obstinate as to elude the most powerful remedies.

8. In

8. In beginning rheumatisms of the scapulæ, nothing is of greater service than a blister between the shoulders. In plethoric persons, and women after the natural cessation of the menses, cupping and scarification on the lower parts every month, have been remarkably beneficial.

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§ 4. *Histories of Cases.*

1. A painter, aged thirty-nine, after travelling whilst the head was affected by a defluxion, and sleeping with the window open, complained of a pain of the right side of the head, and next day of a most acute burning pain about the right ear, which extended to the left, totally destroyed the hearing, smell, and taste, and continued for upwards of two weeks so violent, that he was drove almost to madness. The head being shaved, and a diaphoretic plaster with cantharides applied, the ear discharged for some days a large quantity of serous matter; after which, the hearing returned, the pain descending to the shoulder, thence to the ischium, the knee, and lastly to the great toe. By warm infusions of the milder diaphoretic herbs, and diaphoretic powders with nitre and cinnabar, a perfect cure was obtained in eight days.

2. A Jew, aged forty, of a spongy habit, a sanguine temperament, sober life, accustomed to

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to bleeding twice a-year, had for six years a fit of the gout every spring and autumn, which lasted about ten days. After the cure of a dysentery, he missed the autumnal fit: in its stead, the eyes were attacked with an acute pain, which in some days descended to the os ischii, from whence it extended to the sacrum and coccygis. The pain continued about a month, and increased to an intolerable degree, especially in the night: the exacerbations began about three in the afternoon, with coldness, followed by heat and a quick pulse. A vein had been opened at the beginning, and six ounces of thick black blood taken away, without relief. Nitrous powders were now exhibited, with the mineral anodyne liquor, by which the pain was next day somewhat abated, but the fever returned at the usual time. A vein was therefore opened again in the foot, and ten ounces taken away, without loss of strength. The pain ceased at once, the fever went off, next night he rested well, and by degrees recovered.

3. A gentleman of thirty, of a slender habit, and sanguine constitution, after the cessation for a year of an hæmorrhoidal flux, by which formerly a pain about the os sacrum had been instantly carried off, complained of an acute pain of the left arm, with a violent cough. In some months,

months, the right arm was likewise affected, notwithstanding the use of various remedies, bleeding, purging, cupping, blisters, sudorifics. The motion of the arms remained free: the complaint was, a sense of weight as of lead on them, and such a weakness of the hands, that he could lift nothing heavy, and at times spasms of the hands. To these acceded an almost intolerable pain of the ears, and violent cephalalgia, which destroyed the appetite, and wasted the flesh; not continual, but returning at certain intervals, according to the constitution of the atmosphere. By bleeding in the foot, a gentle laxative, the Caroline waters, and Toeplitz baths, the hæmorrhoidal flux was brought back, and the pains removed.

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4. A gentleman of sixty-six, complained, after the cure of a quartan, of wandering pains in the limbs and external parts, which were exasperated about bed-time. After exposing the head to cold, he was seized with an acute pain in the neck and shoulders, which was at times so violent, that he could not move the head. As he was full of blood, and the pulse strong, a vein was opened: the pain instantly grew easier, a sweat broke out in the night, and he recovered.

5. A strong man of forty, full of blood and juices, had a violent pain of the right scapula.

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On taking a pretty large dose of a bezoardic tincture with volatile spirits, no sweat ensued, the pain increased, and affected the muscle of the neck, so that the head could not be moved to either side : a pain of the right side of the head acceded, with a hot acrid defluxion and redness of the eyes. Bleeding, laxatives, herb-teas, and pediluvia, abated the pains. But a serous defluxion on the palate, and continual falling down of the uvula, remained about a year. These complaints were much relieved by smoking tobacco ; though, in moist weather, he was still subject to a relaxation of the uvula and fauces.

6. A lawyer above thirty, of a slender but fibrous habit, after the cessation of an hæmorrhoidal flux, which for fifteen years before had returned almost every month, and to which the whole family, even females of regular menstruation, were equally subject, was seized with a languor both of body and mind, a tensive and constrictive pain of the sternum, and all over the chest, with a sense of coldness, a difficulty of breathing, especially after exercise and costiveness. Some blood was drawn from the feet three or four times, without relief. Strong exercise was followed by a shew of the hæmorrhoidal flux, with the sensation of a warm fluid descending from the thorax to the pelvis, on which

which the pains ceased at once, but the flux ceasing they returned again. The cure is to be effected by exercise, pediluvia at bed-time, drinking warm infusions in the morning, and taking balsamic aloetic pills about the usual period; and if these should not succeed, applying leeches to the hæmorrhoidal veins.

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7. A woman about thirty, of a sanguineo-choleric complexion, was seized, after a violent fit of passion, with great anxiety and oppression of the præcordia, tremor of the limbs, and loss of appetite. A pretty large dose of spirit of hartshorn made her very hot, but procured no sweat. From this time she complained of a weight and oppressive pain in the limbs, legs, arms, and shoulders, with a languor and heat of the whole body, which wasted the flesh, and seemed to threaten a phthisis or a hectic. Goats milk diluted with infusion of veronica, was taken for some weeks, with the interposition of manna and cream of tartar, and gently diaphoretic nitrous powders, with citron-juice and ana-leptic water, by which she recovered perfect health.

CHAPTER IX.

Of RHEUMATISM of the TEETH, or TOOTHACH.

§ I. *General History.*

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THE acute pains of the teeth are often no other than a species of rheumatism, from impure ferous humours, deposited upon the ligaments and coats which invest the roots of the teeth inserted into the jaws. I have often observed pains of the limbs, shoulders, and scapulæ, remove to one side of the head, and affect the teeth and jaws; and pains of the head and teeth change their place in like manner, and descend to the shoulders or arms. The upper jaw with its teeth is more frequently affected than the lower.

Sometimes also, the seat of the pain is in the medullary funiculus of the tooth itself, which consists of a nervous coat, an arterial, venous, and lymphatic vessel. This may be either distended by stagnant serum, or constricted by a spasm; particularly where the tooth is carious,
and

and the caries has penetrated to this medullary substance: for daily experience shows, that carious teeth are the most subject to rheumatic affections.

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Teeth.

Rheumatisms are generally the effect of sudden changes of the weather from hot to cold, in spring and autumn; and so are toothachs. Women are more subject than men to rheumatisms, and to toothachs also: they are most liable to both in pregnancy, during menstrual obstructions, from acid, salted, astringent, sweet foods: sweets applied even externally to a carious tooth, suddenly bring on the pain. These pains, however, when they happen to men, are by far the most exquisite. Those who labour under gouty or rheumatic pains of the limbs, generally have the teeth unaffected. Violent toothachs, in persons of great sensibility and an impure habit, are sometimes productive of threatening symptoms; watchfulness, fever, prostration of appetite, delirium, coldness of the extremities, and even convulsions, particularly in children.

§ 2. *Method of Cure.*

The general indications of cure are, to divert the impure scorbutic humours from the head,

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to correct and evacuate them, and to strengthen the parts affected.

The two first indications are answered, first, By some simple glyster; from which I have observed immediate relief; all violent pains generally constringing the belly. Secondly, By pediluvia, just warm, of water with bran and soap, in which the feet and legs should be kept for a considerable time at going to bed. Thirdly, By gentle laxatives, particularly cassia and manna, dissolved in sweet whey or the purging mineral waters. Fourthly, in plethoric habits, by venesection. Fifthly, By gentle diaphoretics, as an electuary of rob of elder-berries, burnt hartshorn, diaphoretic antimony, and some grains of nitre, given in elder-flower water.

Sometimes these violent pains are kept up by a redundance of serous humours, and frequently return, in cacochymic, scorbutic, and phlegmatic catarrhus habits. In such cases, I have found nothing more effectual for preventing them than mineral waters, with the addition of milk where the patient is of a tender or bilious constitution.

With regard to externals, the most safe are bags of emollient and paregoric species, as elder-flowers,

flowers, melilot-flowers, chamomile-flowers, bay-berries, juniper-berries, caraway-seeds, millet-seeds, and roasted salt. The fumes of amber, storax, benzoin, olibanum, gum elemi, received by a funnel, or by means of linen-cloths, has sometimes also given great relief; though, in others, I have known them to bring on violent headaches, vertigo, and pains of the eyes. If the tooth be carious, the mineral anodyne liquor, either by itself or mixed with the balsamum vitæ, generally gives ease. In phlegmatic habits, a drop or two of oil of cloves, origanum, or boxwood, may be applied with cotton to the carious tooth; or a mixture of camphorated spirit of wine, saffron, castor and opium, to the teeth and gums.

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tism of the
Teeth.

§ 3. *Practical Cautions and Observations.*

1. In violent toothachs from a rotten hollow tooth, nothing is more effectual, if the situation permits its use, than a red hot iron skilfully applied, as I have often experienced in myself: the medullary part being thus consumed, and the putrefaction removed, the pain totally ceases; and if the cavity be filled with a mixture of wax and mastich, the tooth may be preserved.

2. If the cavity is not conveniently situated for the admission of a cautery, and the violence

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of the pain does not yield to external or internal remedies, the pulling out of the tooth will be the most certain cure.

3. The teeth should not be drawn during the violence of the paroxysm; nor in plethoric habits, where the veins of the temples and cheeks are tumid, and the pulsation of the arteries strong, till the quantity of blood has been diminished by venesection. There are several examples of mortal hæmorrhages from the imprudent drawing of teeth in such circumstances, particularly of the grinders.

4. Opening the sublingual veins has sometimes been of great service: but pediluvia should be premised, and the belly previously loosened. If the habit abounds with blood, it is most advisable to bleed in the foot; after which, if the pain continues, the sublinguals may be opened.

5. Externals sometimes give relief, and sometimes in the same person prove ineffectual: nor has any certain or constant remedy been as yet discovered. The safest way is to endeavour to discuss the stagnant humours, and defend the part from the injuries of the air; both which intentions are answered by the bags above recommended, and gentle diaphoretics.

6. In

6. In cachectic persons, abounding with impure serum, and subject to pains of the limbs, gentle evacuants do no service. Those of the more powerful kind are here required, particularly pills composed of ammoniacum, colocynth, extract of black hellebore, mercurius dulcis, cinnabar, saffron, and castor.

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7. A mixture of camphorated spirit of wine, essence of saffron, nutmeg, and spirit of hartshorn, snuffed up the nose in the quantity of a few drops, instantly abates the most acute pains of the teeth; the nerves of the jaws, teeth and nostrils, proceeding from one trunk, the par quintum. A like effect may be expected also from the mineral anodyne liquor mixed with the balsamum vitæ. But the relief procured by either, is for the most part only temporary.

8. In very violent pains eluding all the foregoing medicines, an opiate may be given, mixed with purgatives and some extract of saffron.

§ 3. *Histories of Cases.*

His serene highness —, upwards of forty, healthful and robust, from continual hunting in cold and in hot weather, became subject to

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troublesome defluxions on the head and adjacent parts, violent pains of the teeth and jaw, affecting at times the neck and shoulders, with a hoarseness and cough. A more quiet way of life was pursued, but the complaints seemed to increase: appetite decayed, and an undue digestion of the food occasioned flatulencies, costiveness, and rumblings of the belly. I endeavoured first to relieve the toothach, which was very violent; and this was happily effected, by a mixture of one part of the balsamum vitæ, with two of the mineral anodyne liquor, applied to the affected side of the head, and with cotton to the carious tooth. He was then ordered a strict regimen, moderate exercise, the avoiding of inclemencies of the air; a decoction of china-root, saffraſas, bark, raisins, and a little cinnamon, for common drink; a tea of balm, sage, veronica, betony, fresh citron-peel and cardamom-seeds, to be taken in the morning in bed; a dram of the balsamic elixir, with a little wine and water at dinner; currants and rhubarb twice a-week at bed-time, to keep the belly open; oil of almonds, with twice its quantity of syrup of maidenhair, in water-gruel, at night, for abating the cough; frictions of the head and parts affected, with warm cloths impregnated with the fumes of amber; and a skull-cap of marjoram, favoury, spike-flowers, rosemary-flowers, chamomile-flowers,

mile-flowers, amber, benzoin, storax and cardamom-seeds. By these remedies he was freed from the rheumatic pains, and continues to enjoy perfect health.

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2. A man of thirty, of a good habit, corpulent and full of blood, after travelling, thinly covered, in wet windy weather in spring, complained of a weariness, weight and giddiness of the head, and a most violent toothach. On taking about ten ounces of blood from the foot, the symptoms abated a little, and the pulse grew stronger. In smoking before bed-time, he drank, by degrees, a quart of cold water; and then covering himself up warm, sweated profusely during the night. In the morning he had lost all the pain both of the head and teeth.

I have always looked upon pure cold water as a medicine of incomparable efficacy in many disorders; both by virtue of its coldness, by which it strengthens the relaxed fibres; and of its fluidity, by which it dilutes thick humours, and disposes them to motion and excretion. This heroic remedy requires, however, some caution in its exhibition: it should be taken, not in large draughts at once, but by little; not in weak and slender habits, where motion is languid, and the veins turgid with serum, but in persons

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persons abounding with blood, where heat is considerable, and motion strong: the patient, after taking it, should be covered up warm, or use exercise so as to promote a sweat.

3. A woman of thirty, full of blood, accustomed to gross salted foods and a sedentary life, subject to constipations of the belly and menstrual obstructions, and of sily blood; was seized in autumn with a violent pain about the nape of the neck, extending to the ear, inflaming and swelling the whole right jaw and parotid, and exciting an exquisite pain in a carious tooth in the same side: the pulse was feverish, the pulsation of the temporal arteries strong, sleep turbulent or altogether wanting; and the mouth constantly ran with saliva. A liniment, containing oil of henbane, caraway, and a little camphor, increased the pain and inflammation. A mixture of the mineral anodyne liquor, camphor and opium, was given thrice a-day: a decoction of barley, scorzonera, and shavings of saffraſas, made into an emulsion with white poppy-seeds, was used for common drink; a liniment of Anhalt water, spirit of elder-flowers, each one ounce, spirit of sal ammoniac two drams, artificial nitre, camphor, each half a dram, opium ten grains, distilled oil of nutmegs fifteen drops, was applied to the nape of the neck. The pain being by these means

means a little abated, she was purged with an infusion in water and wine, of fenna, rhubarb, agaric, cream of tartar and currants. A fixed pain still continued in the gum, with a considerable swelling and redness, for some months. On drawing the tooth, a large quantity of ichorous putrid matter was gradually discharged, and the pain totally ceased.

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4. A woman of thirty, long accustomed to venesection, on becoming pregnant, omitted that evacuation every year, and was almost always seized with violent toothachs and ferous tumours of the face. These she endeavoured to prevent by an essence composed of japan earth, dragons blood, a little burnt alum, and spirit of wine, employed both internally and externally. Exquisite pains of the head ensued, with extreme anxiety of the præcordia, depression of strength, and faintings. These at length ceasing, left a tumour of both jaws, which by cataplasms was exasperated; febrile symptoms increased, she fainted at times, and aborted. The tumour, verging to a scirrhus hardness, was afterwards cured by the plaster called *manus Dei*.

Pregnant women are very subject to toothachs, and œdematous or erysipelatous affections of the head; which may be happily prevented by

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by bleeding and gentle laxatives. Serous tumours not unfrequently become scirrhus, especially if treated with too spiritous discutients: in such cases, I have often observed excellent effects from the gum plaster above mentioned.

5. A man of a sanguineo-melancholic temperament, accustomed to wine and sweets, suffered violent torments from a carious tooth, particularly in the night-time: the pain began about ten at night, and continued till three in the morning, without any external swelling, or preternatural heat: in the cavity of the tooth there was a small spongy particle, of exquisite sensation. Effence of castor with a little opium, put into the hollow, abated the pain: on the third day, it returned at the usual hour, and yielded then, not to that medicine, but to camphor: in a few days it returned again, and yielded neither to one or the other, but was at last relieved by a drop or two of oil of cloves. In another return, the following week, he had no relief from any of the three. I ordered internally the electuary of rob of elder-berries above described; the balsamum vitæ to be snuffed up the nose; and tincture of castor put into the hollow tooth. These alleviated the pain: but the effectual cure was obtained only from drawing the tooth.

CHAPTER X.

Of OTALGIA, or EAR-ACH.§ 1. *General History.*

THE otalgia is a pain in the cavity of the ear or meatus auditorius; from acrid serum extravasated and stagnating in the nervous membrane by which that cavity is lined. It is most common to those who are subject to rheumatic and catarrhal defluxions; and often follows a suppression of sweating on the head, from exposure to cold winds. It is often the effect of an inflammation or ulcer in the ears, distinguishable by a considerable burning heat, tense pain, pulsation, redness, fever, and sometimes a delirium. Sometimes also it proceeds from worms, in which case the pain is vague and pungent, with a sensation of gnawing.

Otalgia,
or
Ear-ach.

Pains of the ears are most violent in persons of a bilious temperament; producing often exquisite headaches, with some disorder of the senses, watchfulness, restlessness and anxiety: in phlegmatic

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matic habits they are less severe. They are often symptomatic, in acute fevers, from a translation of the morbid matter. Deafness, or a great dulness of hearing, happening in the decline, is an infallible presage of recovery : but here it is the membrane of the internal ear, and the auditory nerve, that are affected. A translation to the external ear produces the otalgia, which, without speedy relief, may prove mortal from the vehemence of the pain. Otagia from external injuries, with a discharge of sanious matter from the ear, are commonly mortal.

§ 2. *Method of Cure.*

The primary indication is, to alleviate the pain, by nitrous and cinnabarine powders, the mineral anodyne liquor, and, if these fail, by opiates. Considerable relief may likewise be expected from externals; a plaster of mastich, galbanum, saffron, expressed oil of nutmegs, castor, and opium, applied to the temple and behind the ear; the vapour of milk and odoriferous herbs, and the smoke of tobacco, received into the ear, and bladders of warm liquor laid on the part.

The discussion of the stagnant humour is to be promoted by diaphoretic powders, with small quantities

quantities of nitre and cinnabar. In plethoric habits, a vein should be opened : scarification, or leeches near the part affected, are also proper. If the belly be bound, it should be opened by emollient glysters, or laxatives of manna, cassia, and rhubarb. The patient is to be kept warm in bed, quiet, and free from all noise.

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§ 3. *Practical Cautions and Observations.*

1. In otalgia from foreign bodies forced into the ear, the extraction is never to be attempted during the violence of the pain, as the attempt would not only be fruitless, but increase the pain to an intolerable degree. The part is first to be fomented with some emollient liquor, or some drops of oil of almonds let fall into the ear; which at the same time both alleviating the pain, and relaxing the constringed membranes, the foreign body will often be forced out by bare sneezing.

2. Otalgia from an internal cause generally terminates in an abscess; a purulent ichorous matter oozing from the external glands of the meatus auditorius, which serve naturally to secrete the ear-wax: in children, especially those of a spongy habit, there is often a very large discharge

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charge from these glands of fetid purulent serum. In this state of the disease, we must endeavour to divert the humour to the lower parts, by gentle laxatives, manna, rhubarb, currants, several times repeated; or by pediluvia, blisters, and cupping, particularly in adults. By these means the discharge gradually ceases, without any injury to the hearing.

3. Where a copious discharge of pus has succeeded an inflammation of the ear, external desiccatives and antiseptics are likewise necessary. With these intentions, the ancients employed compositions of aloes, saffron, myrrh, and sarco-colla, made into sticks; or injections of pomegranate-peel, nard, bitter almonds, saffron, myrrh, alum, vulnerary herbs, boiled in wine.

4. We must be cautious, however, not too hastily to restrain lasting purulent fluxions, from whatever cause, by the stronger desiccatives and astringents. From such a suppression have arisen large swellings of the parotids, with extreme pain and other violent symptoms.

5. In severe pains of the ears and swellings of the parotids, succeeding acute fevers, I have found nothing more effectual than cupping and scarification

scarification in the nape of the neck, and an emollient cataplasm, composed of figs, saffron, honey, juice of roasted onions, and white lilly-roots, applied warm.

Otalgia,
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6. In pains from worms that have got into the ear, the animals are either to be invited out by injecting warm milk, or killed by oil of wormwood, of peach-kernels, or of bitter almonds.

§ 4. *Histories of Cases.*

1. A noble lady, above fifty, unmarried, of a sanguine constitution, subject about ten years before to painful fluxions of the external parts, which were relieved by bleeding thrice a-year, on omitting that evacuation, the right arm, after exposure to cold during a sweat in the night, was seized next day with a pain and swelling, which increased to such a degree, that she could not raise or bend it. By frequent fumigations with amber and gummy resins, the pain abated, and the swelling retired to the upper part of the shoulder. A plaster dislodged it in part from thence, and a most exquisite pain of the ear succeeded: the whole head swelled considerably, the hearing grew dull, and some blood dropped

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from the nostrils, with large quantities of mucous humours. I ordered venesection in the foot; a gentle purgative of fenna and rhubarb with decoction of currants; a slender diet; a decoction of sarsaparilla, liquorice, and wild poppies, for drink; a mild diaphoretic mixture, and warm regimen; and the bag above described to be applied to the affected side. On the eleventh day, a plentiful sweat all over the body proved a solution of the disease. The dulness of hearing, and a pain in the ear, which still continued, were removed by the steam of a hot loaf with fennel-seed repeatedly applied to the meatus auditorius. She was again purged by balsamic pills, and by degrees perfectly recovered.

2. A gentleman above sixty, thin, but of a florid complexion, after drinking too plentifully at an entertainment, and returning home at night, complained next morning of a painful weight in the head, particularly the left side, followed by an acute pain of the ear, which in a few days increased to a very violent degree, so as totally to prevent sleep, and occasion a coldness and trembling of the whole body: the pain was so intolerable, that he wished for no other relief than a pistol. Externally nothing preternatural could be seen. The belly was opened by repeated

repeated glysters; the vapour of chamomile-flowers boiled in milk, received frequently into the ear, and antispasmodic powders, with nitre, cinnabar, and a little opium, given internally. At the end of the seventh day, the pain abated; a gentle sweat broke out; the pulse, before contracted and hard, grew softer and calmer; the urine, before thin and watery, deposited a sediment; and at last (nature completing the cure which I undeservedly had the honour of) an internal abscess opened, about two spoonfuls of purulent matter were discharged by degrees, and all the symptoms disappeared.

Otalgia,
or
Ear-ach.

3. A young lady of ten, of a tender and soft constitution, complained of languor, loss of appetite, gripes, and a pungent pain about the hypochondres: she had little sleep, and that generally frightful. Suspecting worms, I gave various anthelmintics, but without effect. She was confined to bed above two months, and moaned constantly. At length the pains in the belly vanished, and were succeeded by a cephalalgia and perfect deafness: the girl was delirious every day, slept not an hour for four weeks, and took no food but some bread and ale. I often visited her, but neither could do any service, nor form any judgment of the disease. At length, a large

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quantity of purulent matter ran from the ear ;
in one day and night, sleep and hearing miracu-
lously returned ; by degrees she perfectly reco-
vered, and has since enjoyed good health.

CHAP.

CHAPTER XI.

Of ARTHRITIS, or GOUT.§ 1. *General History.*

THE genuine gout is an intense pain in one or more of the articulations of the extremities, coming on suddenly, with more or less of a fever, and terminating in a tumour of the part, which does not suppurate.

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or
Gout.

For some weeks before the approach of the fit, indigestion, crudities, and a kind of flatulent distension and heaviness of the whole body, with an unsurmountable listlessness and inactivity, are generally complained of; and for a few days, a numbness of the thigh, and a sensation as of flatulencies descending through the fleshy parts, with spasms and catchings of the nerves. The day preceding the fit, the appetite is more voracious than ordinary.

The patient goes to bed in good health; but about two in the morning is awaked by a pain,

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generally in the great toe, sometimes in the heel, calf, or ankle. The pain resembles that of a dislocated bone, with a sensation as if water, just not cold, was poured on the membranes of the part. A chiliness, shivering, and slight fever, succeed: the pulse is full, somewhat hard, and frequent, and of greater extent than in its natural state.

The pain continues to increase during the next day, and comes to its height by the evening, affecting all the bones of the tarsus and metatarsus, sometimes with a sense of violent tension and laceration, sometimes of pressure and constriction, sometimes of gnawing like that of a dog. The sensation of the part is so exquisite, that the weight of the bed-clothes, or the shaking of the room by walking, cannot be borne. The night is spent in restless changes of posture, without obtaining ease in any, till about two in the morning, *viz.* twenty-four hours from the first attack. The patient now falls into a gentle sweat and sleep; and awaking, finds the pain much abated, and the part swelled.

The fever goes off, the pain continues gradually to decrease, but the foot remains extremely sensible, so as scarce to bear being touched or approached. The perspiration of the part becomes

comes free and copious; the appetite returns; in nine or ten days the tumour disappears; and an almost intolerable itching, with desquamation of the skin, conclude the paroxysm.

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or
Gout.

Such is the course of the most simple paroxysms of the gout. Most commonly each fit is composed of a number of these paroxysms succeeding one another; all irregular, except the first, both in the time of seizure and continuance. Both feet are attacked sometimes at once, sometimes one in a day or two after the other: a number of joints are frequently affected in one foot, and the pain often renewed in one joint. In all these compound fits, as well as the simple, the pain is constantly exasperated in the night, and remits in the morning. Their continuance, in strong persons who have seldom had the disease, is usually about fourteen days; in the aged, and those who have suffered several attacks, near two months. The disorder is periodical, returning chiefly in the autumn and early in the spring.

After numerous fits, especially in an advanced age, it frequently attacks the hands, wrists, elbows, knees, or other parts; sometimes distorting the fingers, gradually depriving them of motion, and at length producing nodes and creta-

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aceous concretions about the joints; sometimes occasioning a large white swelling of the elbows, which by degrees becomes inflamed; sometimes producing in the thigh a sensation of great weight, but with no considerable pain; from thence descending to the knee, and affecting that more severely. And now almost all the limbs are contracted and lame.

In this inveterate state of the disease, the fits become less and less painful, but of much longer duration, continuing almost all the year, except two or three of the warmer summer months. In general, the less violent the pain, the longer does the fit continue, and the less perfect is the intermission.

Bathing in water scarce warmer than the skin in health, frequently invites the gouty matter to the part: a degree of heat considerably greater or less, prevents its fixing, and often repels it when fixed. The humour, repelled, constantly attacks some other part, sometimes the articulations of the trunk, and sometimes the viscera. When these are affected, whether from a translocation of the humour, or from its being primarily deposited upon them, the gout is termed *irregular*.

The

Arthritis,
or
Gout.

The irregular gout assumes the forms of all the different diseases to which the part it occupies is subject. In the membranes of the brain, it occasions paralysis, delirium, tremors, violent cephalalgia, universal convulsions, apoplexy; in the membranes of the teeth, exquisite tooth-achs; in the coats of the stomach, spasms of that viscus, hiccups, vomiting, cardialgia; in the lungs, convulsive coughs and spasmodic asthma; in the membranes of the ribs, a spurious pleurisy; in the coats of the intestines, violent gripes; in the urinary passages, nephritic pains, an ischuria, and spasm of the part. Sometimes the disease remains fixed and uniform: sometimes it is perpetually varying its appearance, without changing its place: sometimes it shifts suddenly from one part to another, and is then termed the *flying gout*; this happens chiefly in the external parts.

Persons subject to the gout are for the most part in other respects healthful; and hence in all their distempers the gouty matter is to be suspected of having a principal share. These diseases are likewise distinguishable from the similar ones arising from other causes, by the body not being emaciated, or at least not near so soon or so much; by an irregularity in the appearance and symptoms; and by thick turbid urine,

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rine, with certain viscous transparent filaments floating in it. These last are a constant mark either of gouty or nephritic disorders, which seem to be in some measure allied, and frequently change one into the other.

A regular gout in the joints, always severe, is never fatal or dangerous. To those whom it first seizes in an advanced age, it promises longevity: but those to whom it is hereditary, and whom it attacks early in life, generally have their days shortened by it: after repeated fits for a number of years, a loss of appetite, sickness, weakness and other symptoms are joined, under which the patient gradually sinks. The internal gout is generally full of danger; more or less so, according as the part affected is more or less necessary to life. Flying pains in the limbs give hopes of the translation of the humour to the articulations, the desirable solution of all internal gouts. The hereditary gout scarce admits of a radical cure, but may be palliated or prevented from discovering itself, by a proper regimen. The adventitious gout, in the beginning, whilst the fits are simple, is by no means beyond the power of medicine.

Arthritis,
or
Gout.§ 2. *Method of Cure.*

The gout is always to be prevented, and often cured, by temperance and labour: there are not a few examples of persons of rank, who have lost the gout with their fortunes. In the room of these simple remedies, artificial evacuations have been called in aid, and sometimes with success; such as bleeding some time before the approach of the fit, cupping and scarifying the upper part of the foot, laxatives and aperients, an emetic once a-month, mineral waters, plentiful dilution with mild emollient liquors, a diaphoretic regimen, friction, and mild sudorifics.

On the approach of the fit, a laxative is advisable. During the paroxysm, little more is to be attempted than keeping up a freedom of perspiration and openness of the belly. Topics in general do more harm than good: one of the least hurtful is a cataplasm of crumb of bread, milk, yolks of eggs, saffron, and elder-flowers: in violent pains, relief is sometimes obtained from applying the warm flesh of an animal newly killed. In the decline, the volatile tincture of sulphur is of use for preventing tophaceous concretions; and the balsamum vitæ with Hungary water, when the pain is gone off, for strengthening the parts.

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§ 3. *Practical Cautions and Observations.*

1. In young persons, full of blood, accustomed to high feeding, where customary evacuations of blood are suppressed, venesection is of great service for preventing the fits, and may be boldly ventured on when the fit is approaching: when the body is weak, and abounds with serum, it does harm.

2. The gout has been cured, or rather the paroxysms suspended for a length of time, by a milk diet. If the patient afterwards returns to his former way of life, either the fits happily come back, or in their place, particularly in aged and weak persons, succeed spasmodic complaints, colics, cardialgic inflations of the stomach, nephritic pains, with an ischury, and in no long time even death itself. In plethoric or impure ferous habits, in hypochondriacal cases, where the tone of the stomach and intestines is weakened, and crudities abound in the first passages, milk is entirely improper.

3. Strong purgatives are never to be given during the paroxysm, or on its attack: gentle laxatives may have place.

4. Topics,

4. Topics, for the most part dangerous, are most so in plethoric cacochymic habits, in hysterical and hypochondriacal persons, and those of great sensibility. Spiritous and camphorated applications do little harm in sluggish humid subjects; but in those of a dry habit, they either repel the gouty matter, or dispose to the calculus, or promote the formation of tophi, or leave troublesome contractions of the parts.

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5. The gout does not bear a multiplicity of medicines: the practitioner should confine himself to a few, of experienced effects.

6. Some celebrated French Physicians recommend frequent bleeding; which does not, however, answer in this climate, unless in the earlier stages of the disease, and where the patient is much disposed to be plethoric: in such cases, a little blood may be advantageously taken away, or rather scarification performed in the foot, every month; a laxative being always premised.

7. After the paroxysm is over, there frequently remains a considerable swelling of the affected foot, of the œdematous kind; especially in persons of a spongy serous habit. This is to be treated, not with strong purgatives, but with gentle
balsamic

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balsamic laxatives given in small repeated doses: some camphor, mixed with farinaceous powders, is to be strewed upon the part, which should be kept lightly compressed, to prevent a farther afflux of humours. For resolving tophaceous concretions, I have found nothing superior to a balsam prepared from the salt of the scoriæ of simple regulus of antimony, with the oils of turpentine and juniper-berries.

§ 4. *Histories of Cases.*

1. A gentleman above sixty, afflicted for several years with convulsive spasmodic and gouty pains, which were annually relieved by the Caroline waters; took, in a fit of the gout, an empirical powder, which appeared, from the taste, mercurial and vitriolic. After twelve doses, one every two hours, the pain ceased at once; but was succeeded by vehement cardialgia, restlessness, gripes, obstinate costiveness, faintings at times; and soon after, he expired in an apoplectic fit, with the head and whole body surprisngly swelled, and the mouth foaming with blood and serum.

2. A gentleman about seventy, after frequent fits of the gout, applied a spiritous liquor, by which the pain was almost entirely carried off.

In

In a few weeks, violent gripes came on, with vomiting and costiveness: these were removed by glysters and antiphlogistics, and repeated returns were remedied by the same medicines, the gout never re-appearing: but the appetite entirely failed, the body wasted daily, the belly never answered without assistance, the urine was high-coloured, and the patient, confined perpetually to bed, at length expired.

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3. A gentleman of sixty, after some fits of the gout, which were not very violent, took in autumn a slight opiate every night for some weeks. The fit returned at the usual time, and proved remarkably milder than the preceding ones; but some weeks after, a fever came on, with a total loss of strength, coldness of the extremities, and perpetual sleepiness, by which he was unexpectedly carried off.

END OF VOLUME FIRST.

